THE SCHOOL ARTS MAGAZINE

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The Editorial Point of View

ART IN CRAFT

WE had completed our inspection of the goods carried by a wholesale house in one of our largest cities, and were about to leave, when the Manager appeared.

"What did you think of our line of goods?" he asked. My companion, an honest, outspoken business man, answered promptly, "The worst lot of truck I ever saw! Why don't you make something decent?"

"It is junk, of course; I know that just as well as you do; but it sells!" replied the Manager.

"That rot sells? Who buys it?"

"Everybody. All the big department stores carry our goods. How much business do you suppose we did last year?"

"I'd be ashamed of my fellow countrymen if you did a thousand dollars' worth!" said my companion with a good natured smile.

The Manager smiled back at him indulgently and took another pull at his cigarette before remarking in a casual tone,

"Our business last year was a million and a half."

"A million and a half on such ugly stuff as that!" exclaimed my friend.

"It's only ugly to you and me," said the Manager; it's pretty to the crowd. And you can paste it in your hat that things haven't changed much since that little stunt in the Garden. When they saw 'twas 'pleasant to the eyes,' you remember, the first salesman had put it over! It's just the same today. Make a thing that gets the eye, and you've got your business."

"I wonder if he ever read the rest of his Bible," said I to myself as we came out. Is it ethical to sell to one's neighbor that which one knows to be bad? Satan "put it over," all right, with Eve. Should a man follow his illustrious example, and that for the sake of money?

But that is not the point, just now: the point is this:

THE APPEARANCE OF A THING DOES MAKE A DIFFERENCE.

Every manufacturer knows that a thing must look right if it is going to sell. Moreover every manufacturer knows that a thing to sell now has to look better than it did ten years ago. Public standards have changed. The up-to-date advertiser puts appearance first. Here are some sample sentences from the advertisements in a single number of a recent standard magazine. The italics are mine to emphasize what is evidently first in importance:

"*Perfected* products, established standards, moderate prices."

"Extensive collection of *beautiful* hand-made furniture,—*highly artistic* in design." [Nothing about serviceableness!]

"For this $20, $40, $60, you receive a few dollars' worth of felt, velvet, ribbons, trimmings—all the rest of your money will go for *style and correctness*. Unless your choice is *correct* your money is worse than wasted."

"*Music, art,* and college preparatory courses."

"*Beautiful situation,* extensive campus, approved water supply, strong faculty, thorough work."

"Its *beauty of appearance* corresponds with the other fittings of your car."

"*Quality* is economy."

"The *Modish* boot for fall." [Nothing said about fit or quality of material or make.]

"*Most approved styles* and printed on the finest paper."

"Let us send you beautiful full colored pictures to show the *effectiveness* of the various styles." [Nothing about excellence of construction.]

"A woman's *looks* count for so much more—our toilet soap contributes in an eminent degree."

"Not only *to design* and build—to give it the *right features,* the right material and the right workmanship."

And so one might go on indefinitely. When walking through the shopping district notice the signs:

"We strive to *please the eye* and fit the foot."

"The *most beautiful* and durable of garments."

"*Style* is our first consideration."

A cash register company maintains an elaborate "art department." Manufacturers of house paint publish expensive color prints to show customers how to use what they buy. A great commercial house in China sends out with every piece of high grade dress goods a card showing the colors that may be used with it effectively. Beauty has to be reckoned with in good business.

THEY KNEW THAT IN 1870

The movement for art education which resulted in bringing Walter Smith from England, and the founding of the Massachusetts Normal Art School, began with Boston merchants and manufacturers who wanted to see more *art* in their wares. They foresaw, what is now so evident to all, that in the long run beauty is bound to get the lion's share in trade. They pointed to the example of England awakened to her art educational needs by the Crystal Palace Exposition; to the example of Germany awakened to the value of art in craft by the promptness with which the French paid the Franco-Prussian war indemnity; to the example of France herself, first of modern nations to train artist-craftsmen. They urged the Massachusetts legislature to do something to help educate people to produce goods that would be beautiful enough to compete with foreign goods.

The movement now upon us, this enthusiasm for industrial education, is but another blossoming of the same old stock. This time more luxuriant, more universal than before, it is destined to benefit a larger number of people. But the marketable fruitage of it, the concrete result that the manufacturing and commercial backers of the movement anticipate, will be disappointing unless everywhere and always provision is made for the cultivation of taste.

HOW IS TASTE DEVELOPED?

The training of boys and girls to the highest industrial efficiency means the development of intelligence, skill, and

taste: not one nor two of these qual ies but all three of them in just proportion. At the present moment taste is not receiving its share of emphasis.

Taste is the result of an intimate acquaintance with cultivated people, of first hand experience with fine things. It cannot be bought ready made, like a silk hat, nor compounded while you wait, like an elixir. It has to be grown. Teachers must find good seed and plant it; softening influences must fall from a beautiful environment; the life within must itself aspire; the individual must put forth leaf after leaf of effort, reaching ever upward toward a worthy ideal. Only so will the beauty of the flower appear, and only after that the fruit that all desire. Has any serious attempt yet been made in the schools of secondary grade in our public school systems to develop taste through handicraft?

The condemnation of "Manual training" was justified because after a whole generation had been subjected to it, not a boy had ever heard of the ebony casket of Queen Makere at Cairo, nor of the Pentelic chair of the Priest of Dionysos at Athens, nor of the bronze tripod of Isis at Naples, nor of that wondrous shrine of Or San Michele in Florence, nor of the Pala d'Oro at Venice, nor of the Wooden Madonna of Nuremberg, nor of any other masterpiece of craftsmanship in any realm. Every child ten years old who had come under the influence of a live supervisor of drawing had heard of Raphael and Michelangelo, of Murillo and Velasquez, of Rembrandt and Van Dyck, of Sir Joshua and Turner; but what graduate of a manual training school had ever heard of Bazaleel, or Duris, or Zopyrus, or Master Gerard, or Taddeo Gaddi, or Stradivarious, or Palissy, or Hans Sachs, or Sheraton, or any other of the master craftsmen of the world?

The technical high school, the vocational school, the trade school, and every other kind of institution for developing a higher industrial efficiency, will fail to produce what the world needs most, unless its graduates have that sort of taste that comes from constant companionship with the masters and their work. Our new courses must be at once more "practical" and more "cultural" than manual training courses have been.

The new schools need collections of beautiful objects, photographs and lantern slides of the best handicraft of the world, books about the master craftsmen, lectures on the principles of design, practice in freehand drawing, exercises in color, in short everything that will cultivate taste. John Cotton Dana of the Free Public Library, Newark, N. J., a keen-eyed and clear-headed educator, has this to say about our problem:

> The development our young people need is development of the art of *art appreciation*. They should be encouraged to learn how to look at things, how to judge of them, how to criticize them, how to find fault with them, how to understand them, how to appreciate them. By and by they will begin to have feelings of their own concerning them. Thus they will have become "artistic."
>
> I have told you all this several times before and you always admit it, and then go away and do the wrong thing. Look into these matters.

Not only should fine things and great craftsmen educate the pupil, but every model used in his instruction, every project undertaken, should have some

flexible element, some feature that the pupil can modify, and through which he can express his own ideas, and manifest his own taste. That, too, is educational. Moreover, spontaneous variation of the individual from type, is nature's open door, the one unaccountable loophole in universal law which makes possible evolutionary history and that glorious future which it hath not entered into the heart of man to conceive.

THE INSERTS, ETC.

COLORING is never weak nor monochromatic in Hungarian school work. The frontispiece this month, printed from imported plates, will furnish a demonstration of the truth of this fact. Daring combination of hues, of strong chroma, with bold contrasts in value, produce brilliant effects. Such coloring is piquant and delightful in jewelry and other objects of small size, but it becomes wearisome when in the large. From the point of view of the structural designer the hairpin might be criticised for the apparent lack of sympathy between the blade and its ornament. Structurally it would have been better had the aft wings been attached near the small rosettes. The conventional rendering of the bird forms is of unusual interest.

The rug design awarded first prize in the American Crayon Investigation Contest for last June, is highly creditable to a twelve-year-old. The drawing conformed to the specification,—a design worked out to show the color effect of the object when made in its appropriate material. This design was drawn on squared paper, with praiseworthy precision. The ornament is well disposed to distribute the attention, and the color scheme as a whole is pleasing.

The third insert exhibits a good harmony of color, with a reddish yellow dominant hue; it offers suggestions to those who are designing bungalows this month; and it also gives, incidentally, a hint of what a progressive commercial house is doing in the way of appealing to the taste of its patrons. Such advertising as this plate represents is ideal. Its results are of distinct advantage to all parties concerned. This plate is reproduced by courtesy of the Sherwin-Williams Company of Cleveland, from "A Portfolio of Suggestions for Painting and Decorating," issued by their Decorative Department.

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The quotations used as tailpieces are from one of the most brilliant papers read at the meeting of the Western Drawing and Manual Training Association at Des Moines, last May. Mr. John W. Curtis is Master of the new Vocational Grammar and High School, Memphis, Tennessee.

Bringing Real Life to School

By Willis B. Anthony

Practical Arts Department, State Normal School, Fitchburg, Mass.

Willis B. Anthony

"I CAME to this school to make it easier to learn a living." So wrote a seventh grade boy in giving his reason for choosing to enter the Practical Arts School. "I meant to earn a living," he explained as he started to change the "learn" to "earn." I stopped the change and saved his paper. Accidentally he expressed the motto of the school—to learn the living of the world today.

It was four years ago that this motto was first put into effect. The school had just opened. Twenty benches had been made. Each was fitted with six drawers. Thirteen dollars worth of strap brass had been purchased for making drawer pulls. In my previous position drawer pulls and hinges had been school made. The brass was never unpacked for the purpose intended. We bought our drawer pulls ready made, because today in the trade, the carpenter buys his fixtures ready made. This in one instance of school life reflecting the methods of real life.

One day before the school installed its machinery, material for fifteen teachers' desks was hauled to the school from the local lumber yard, where it had been sawed to width, planed to a specified thickness, rabbeted and plowed to order. Two visitors stood by and shook their disapproving heads as it was unloaded. They believed that schools should do all such work by hand and said so with some emphasis. "Cutting these pieces to length and making the joints means more hand work on this job than will be done when this school has its own machinery," was all the satisfaction the visitors got from the carpenter in charge of the woodworking shop. The school now has its own machinery. It is doing no less by machinery and no more by hand than is being done in a modern shop. This is another instance of making real life of school life.

"Do you know the up-to-date methods of your trade is the entrance examination that the journeymen on the faculty have had to pass? They are bringing all that is possible and desirable of their trade into the school." "This is more shop like than school like" is the compliment that visitors often pay to these journeymen faculty members. Not only do they know present day conditions but also anticipate as much as possible the conditions of the future. The boy cannot be prepared to meet the conditions of his day ten years hence by going back to the made-by-hand methods of twenty years ago.

"It is deplorable that boys are shut out from the activities of their industrial surroundings. They are entirely out of touch with the world builders of today and their knowledge of the world's way of working is deplorably meager."

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1. Normal school men of the practical arts department, under the instruction of a shoemaker, a temporary member of the faculty, preparing to teach shoe repairing to the boys.
2. Eighth graders estimating the number of board feet and the cost of a neighboring pile of lumber before making a purchase.

WE PRESS THEIR MEMORY TOO SOON, AND PUZZLE, STRAIN, AND LOAD THEM WITH WORDS AND RULES, LEAVING THEIR NATURAL GENIUS TO MECHANICAL AND PHYSICAL, OR NATURAL KNOWLEDGE UNCULTIVATED AND NEGLECTED. *William Penn.*

3. Clearing ground for the athletic field. Library furniture for new dormitory will be designed and made from this oak.

4. Boys laying a tile drain before raising the grade to make a school garden.

NOW I WAKE ME UP TO WORK,
I PRAY THE LORD I MAY NOT SHIRK;
IF I SHOULD DIE BEFORE THE NIGHT,
I PRAY THE LORD MY WORK'S ALL RIGHT.

The audience of the convention bowed submissively to the truth of the speaker's statement. On visiting the large heavily endowed school conducted by the speaker, the students in the forge room were found swinging sledges so near a plastered wall that they hardly missed its finely painted surface. Surroundings and results of work were more school-like than shop-like. Iron workers from the trade, working entirely apart from the students, were handicapped in hurrying the framing of an addition to the building, because help was scarce.

In another city the woodworking department was visited. No overalls were in sight, nor were they needed. High school boys were doing well-made joints and fragments of furniture construction for exhibitional purposes. At the other end of the building through a doorway guarded by a "No Admittance" sign could be seen a carpenter "never disturbed by anybody" making a simple table needed in a student room upstairs.

The janitor of still another school, working in the supply room did up all the packages that left the building. Behind a "No Admittance" sign he was making an express package of an exhibition of string tying, paper and cardboard folding done by a sixth grade class.

The "No Admittance" sign is a modern necessity. It has its place. In most schools real life is doing every day work of some form behind doors unnecessarily closed and barred to pupils. That such schools ignore their duty of turning such "Keep-out" signs to the wall, and fail to grasp their ready opportunity of bringing school life to feel more and more the influence of real life, is indeed "deplorable."

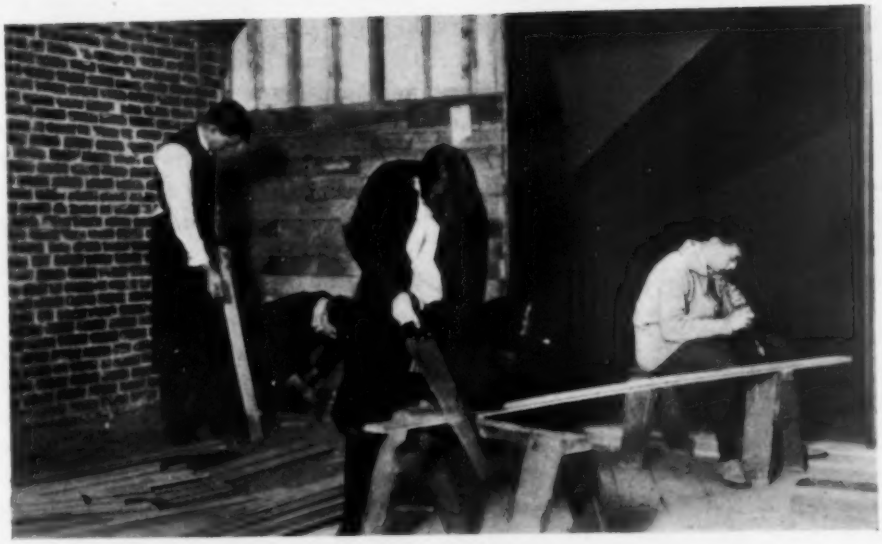
Boys working with the janitor, the carpenter, or the iron-workers would have learned with proper guidance three important standards, so frequently missing in school life, that apply to real life:

(1) Work must be done accurately and quickly is a business principle.

The Practical Arts School was first called the Manual Arts School. With the change of name occurred the surprising change of local attitude. "I thought you taught the old time manual training over here," was the way a prominent shop man explained his previous indifference toward our work. "School boys have come to me," he continued, with the unfortunate idea that shop work permits puttering away time and material, striving for accuracy alone. Such an atittude is not good business. Competition is cutting work down to the fewest number of moves. Of course the work must be accurately done. It is just as important that it be done with business-like dispatch."

(2) Work must be done in response to a need is another principle of modern business.

Young men students in the practical arts department of the normal school were figuring the cost of labor for laying the steel needed for the proposed reinforced concrete floor of the new greenhouse. After investigation they arrived at this statement. Four laborers can lay 10 I beams and 2,000 square feet of Clinton mesh in one day. Consulting their blue prints they found that 24 beams and 4500 square feet of mesh



5. All of the dormitory furniture is being designed and made at the school. This shop was a school attic.

6. Eighth graders with a senior student completing the attic corridor. The new stairway was planned by the young man. It was erected by the combined forces of the school boys, young men, and journeymen teachers.

CHILDREN HAD RATHER BE MAKING OF TOOLS AND INSTRUMENTS OF PLAY; SHAPING, DRAWING, FRAMING, AND BUILDING, ETC., THAN GETTING SOME RULES OF PROPRIETY OF SPEECH BY HEART. *William Penn.*

were necessary. The first problem asked what would be the bill of labor for laying the steel. From this and several other problems they were asked to hand in problems for the seventh grade to do. This problem was submitted. It was (the first problem restated): How long it would take a gang of eight laborers to lay I beams twice as far apart in a building once and a half as large?

Compare the two problems. The first was a real life problem. Figuring the cost of labor made its solution necessary. The second problem was fictitious. Eight men would be in one another's way. Beams so far apart would mean poor construction and so large a house was out of the question. Hiring labor for a certain amount of time did not depend upon the correct solution of the second problem. Like many such school problems it was divorced from the facts and needs of real life.

(3) Another industrial principle of real life is that operations do not follow one another in sequential order of difficulties.

The world's work of today does not necessarily add a more difficult tool manipulation, the drawing of a more difficult line, the making of a more difficult fold to the work of the day before.

Goethals, of Panama fame, when he has finished the "greatest liberty with nature that man has ever taken" will not have to remain idle until a greater project presents itself.

The boys who helped to frame the new dormitory furniture last month were making last week five sleeve boards needed in the household arts department. If more difficult work had been ready for them to do, they would have done it. It didn't offend the policy of bringing real life to school to have easy work following the harder work previously done.

The chief value of practicing such standards of real life is their contribution to the general education of all boys. There is cultural value in knowing from experience the conditions of the present day living and life's adjustments in meeting such conditions.

Not many years ago we were flattered to believe that culture came from books on Roman and Grecian life, from accounts of medieval days when "Knighthood was in Flower." We knew nothing of the life going on in the shops, the fields and the market place that we passed on our way to school. Such life was too modern to get into books. An event worthy to be placed in text books must boast a lineage of subsequent events dependent upon it.

The Practical Art movement is bringing to school the life of the day. It is trying to anticipate the life of the boy's day ten years hence. With this as a basis it is working back through the pages of the past. Such are the growing demands of a liberal education.

IT IS USUALLY MORE REMUNERATIVE AND ALWAYS FAR MORE USEFUL TO BE A FIRST-CLASS COOK THAN TO BE A SECOND-CLASS LAWYER, DOCTOR, OR TEACHER. *John W. Curtis.*

An Art-Craft College

A SOUTHERN INSTITUTION THAT IS DOING THINGS WORTH WHILE

By Edna Reed Whaley

A Graduate of Newcomb College, New Orleans, La.

Edna Reed Whaley.

NEWCOMB Pottery and Newcomb Embroidery take their name from the school that originated and has fostered them, thus opening new vocations to the young women of the South.

Newcomb Art School is a part of Newcomb College, the woman's department of Tulane University, New Orleans.

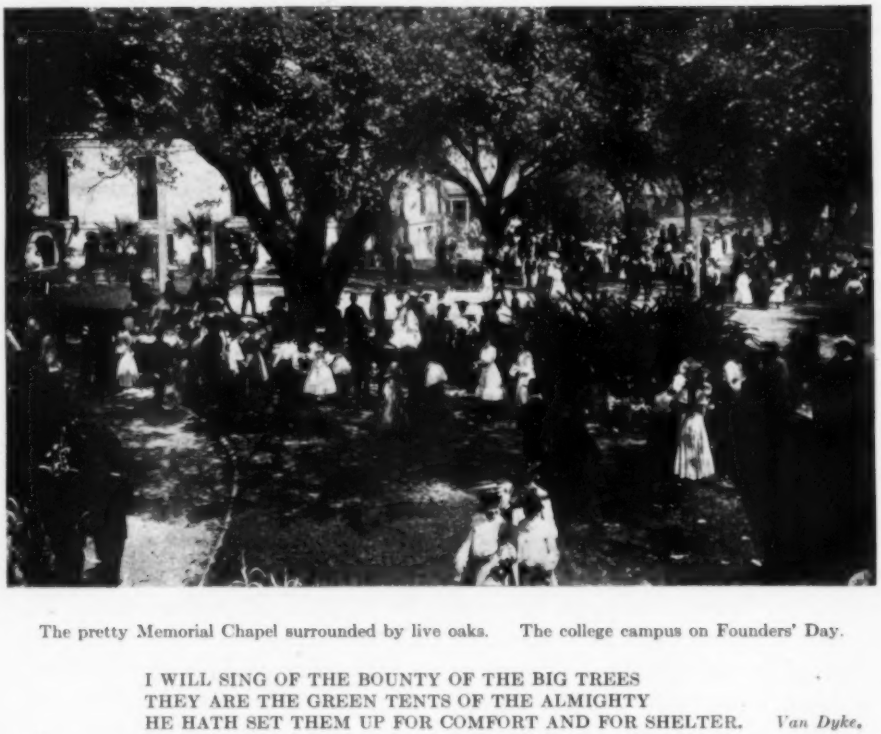
"There can be no great school of art unless artistic tastes are developed in every walk of life," said Linda Villari. This is pre-eminently the Newcomb idea. The college has become an object lesson to the whole country as to what can be done through utilizing local resources. It has put their very spirit into tangible and beautiful form. It has organized the talent of the community to meet its own needs, just as the medieval guilds did long ago in Germany and Italy.

The Art School was the direct outgrowth of the Newcomb College students' desire for artistic expression, and was founded in recognition of the educational and economic need of art in a community's upbuilding. President Dixon recognized that art was an important factor in a liberal education, and organized art classes in 1887 under the direction of Professor William Woodward. After the first year, Professor William Woodward was retained in Tulane College and Professor Ellsworth Woodward made director of Newcomb Art Department, which has since remained in his charge.

Beginning at Paris 1900, Newcomb art work has gained medals at all the international expositions, and has won special recognition at the International Art Educational Congresses of London and Dresden.

Well-equipped buildings with separate well-lighted studios for each branch of instruction, are now scarcely able to accommodate the ever-increasing numbers of students. A library affords ready reference to the current art periodicals and to the best of art books. Two top-lighted galleries contain a permanent exhibit of celebrated pictures owned by the College, and of some valuable loan collections. A collection of reproductions from the works of the old masters constitutes a graphic outline of historic art and serves as a source of illustration for the weekly lectures.

These lectures are given by the Director every Friday afternoon. They are illustrated by stereopticon slides and in every other possible way, to familiarize the students with the best that has been produced. Upon these lectures students are required to take notes. The



The pretty Memorial Chapel surrounded by live oaks. The college campus on Founders' Day.

I WILL SING OF THE BOUNTY OF THE BIG TREES
THEY ARE THE GREEN TENTS OF THE ALMIGHTY
HE HATH SET THEM UP FOR COMFORT AND FOR SHELTER. *Van Dyke.*

A tea set upon a crash table runner, all of characteristic Newcomb design.

Friday lecture is followed by an exhibition of the independent work done during the week by all the students of the school. Their compositions are hung, unsigned, on the wall. Professor Woodward criticises each one separately, commends the good qualities or points out the defects, as the case may be, and gives instruction in pictorial composition. The value of such work can hardly be overestimated. A student who begins with a composition, rather than with painstaking drawing direct from the model, grows rapidly in power of imagination, and in independence of thought. She draws better from the model after she has discovered her needs.

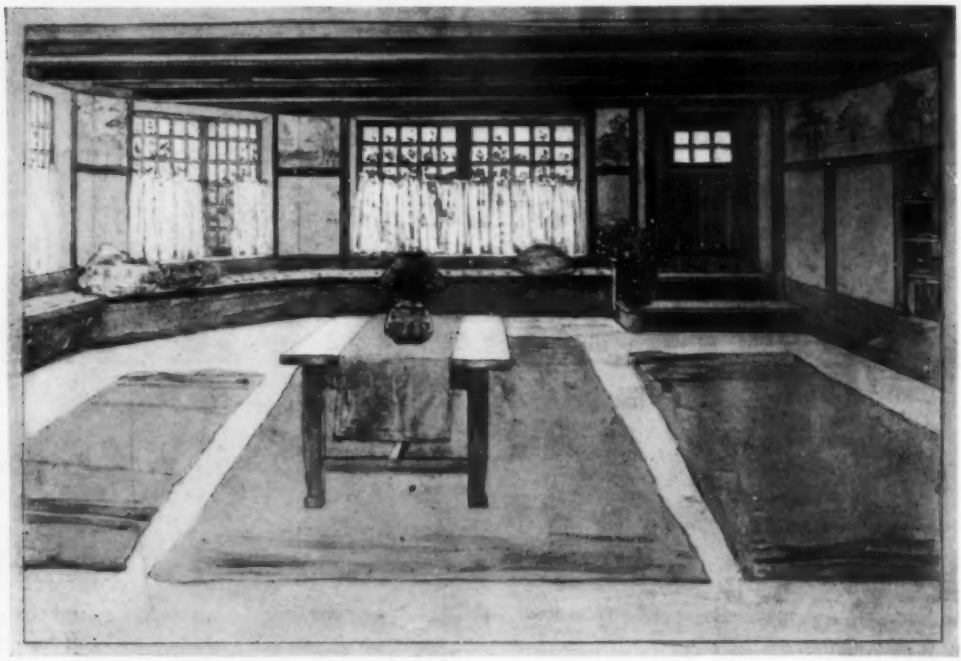
Special courses are open to all who desire to specialize, but such students are strongly advised, and nearly always required, to take other branches collateral with the study of their choice.

Although academic students cannot devote much time to art, the few periods allowed prove to be an impetus to all the especially ambitious and talented. A cultivation of taste and a sensitiveness to beauty are immediate results often made apparent through furnishings in private rooms, club-rooms and homes.

In the Normal Art Course four years' work is required before graduation. Its diploma has been formally recognized by the University Council as equal in dignity to a Bachelor of Arts degree; but as the art course is rated as a strictly technical one, no degree is granted for it.

Perhaps the School's most significant feature is that design is made the basis of every study; that is, design in its broadest sense, including composition. Although the methods of instruction are in accord with those found in every large art center, yet when introduced they were essentially new to the community.

An oil study from a local subject.
By a fourth year Newcomb student.



Original design for the reconstruction of a basement room. By a fourth year Newcomb student.

Newcomb, by the skill and beauty of her successful productions, had not only overcome all prejudice or indifference, but has created a local as well as universal demand for her wares, the secret of whose beauty lies in the clever adaptation of local material. The general study of design is supplemented by special courses in pottery, china painting, needlework, weaving, leaded glass, and metalwork. These industrial courses afford a practical application of the training already received and give an opening to those whose talents are essentially constructive. The intention is to bring out, encourage, and develop individual expression, and to enable women to produce work which will have an artistic, practical, and financial value.

The art school takes honorable precedence in that it was the first to endeavor to bring its prepared pupils into direct relation with the buying public. "We believe that it is the duty of the school to help the artist to find a patron," says Professor Ellsworth Woodward, Director.

The pottery is a definite turning aside from the beaten path and is distinctly original and individual. Under the immediate teaching of Miss Mary G. Sheerer, and the directorship of Professor Ellsworth Woodward, the pottery has improved each year in beauty and workmanship. In connection with Mr. Meyer, the potter, these indefatigable workers made numerous experiments until they discovered the combination of clay, glaze, and color which consti-

tutes the unique production now before the public.

The tract of clay used, near Bayou Tchoutakaboufa, is owned by the College. The mineral colors form a harmony of cool blues and greens. Touches of white and yellow give variety. A red and a green glaze is used on terra cotta ware which is not decorated, and a transparent one on the decorated ware. The designs are drawn on the surface of the clay and are incised or modeled before the clay is fired; after this firing they are painted, then glazed and fired again. The designs are not duplicated. Constant watchfulness is maintained to keep the work of uniform standard. As soon as the work of a pupil reaches the required standard, it is bought by the College and is sold in the Pottery salesrooms. After a pupil reaches the point where she does not require further instructions she is called an independent designer and is not required to pay tuition. The monograms on the bottom of the pottery pieces are various; *U* and *Q* denote the color of the clay; *M* is for Mr. Meyer, the potter; an *N* within a *C*, is the pottery trade-mark.

The needlework department, under the instruction of Professor Gertrude R. Smith, offers another course of great practical value. Its aim is to deal with local conditions and to prove a large factor in the economic life of the community. In each piece while beauty of design goes hand in hand with carefully selected textures, a skilful use of the needle, and permanence of dye and fabric, the chief value lies, perhaps, in its reflex influence upon the worker. It gives perpetual delight, and inspiration to originality. The designs are never duplicated. To be in the embroidery department one must have facility in drawing and design. The most popular materials are homespun crash, natural linens, and rough silk.

A loving cup and a crash table runner showing different adaptations of the pine.

Great strides have been made in weaving rag rugs, portieres, table covers, etc., the variation in color and design giving them especial attractiveness. Newcomb has also entered the field of ecclesiastical embroidery, with special attention to the fact that the design should be adapted to the conditions of lighting and distance; symbolism is strictly adhered to; the richest materials

A cup and saucer decorated with a local motif.

are used, enhanced in effect by skilful design and workmanship.

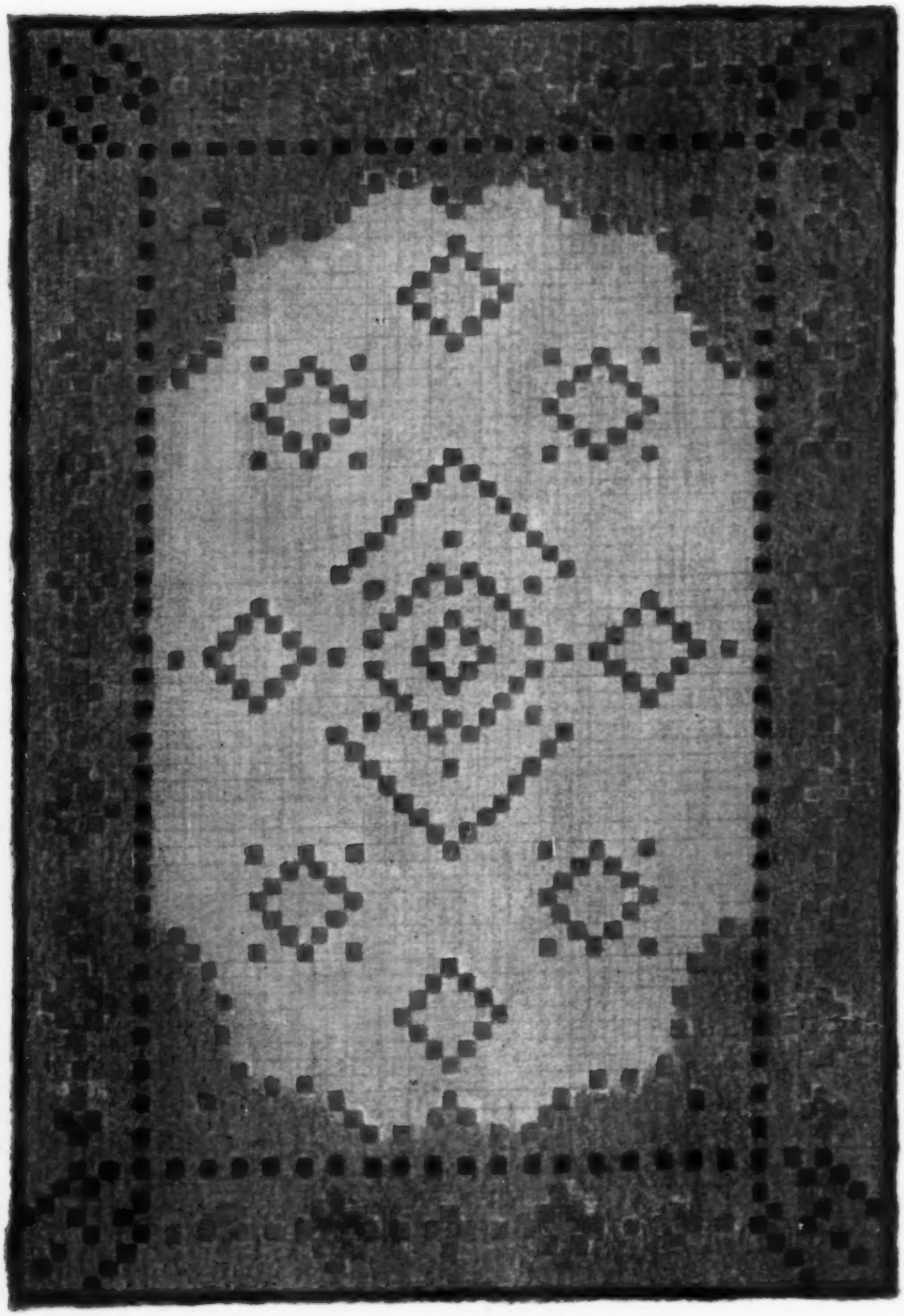
Newcomb pottery and embroidery are an important addition to American art. At Jamestown, the pottery was awarded a gold medal. The national reputation of the needlework was recognized in its exhibition in the International Art Gallery at the World's Fair, St. Louis.

The originating of pottery lamps led to the making of suitable shades to accompany them. Some of the shades carry out the design on the lamp bowl in leaded glass; in others with the metal glaze bowls, the designs are carried out in bead work. Perforated brass and copper shades are also made. Répoussé and cut metal work for trays, desk sets, etc., are later additions to Newcomb wares.

All these domestic arts foster good taste and love for fine decoration in the home. Weaving is beginning to take a place alongside pottery, for it offers a practical application of instruction in design, and is remunerative.

If a student intends to be a teacher, courses in pedagogy and psychology are supplemented by one year's experience in class rooms with girls from twelve to eighteen years of age. The Newcomb High School which prepares for the college, affords a free field for experience in teaching. The fourth-year normal art students are required to teach in four grades under the direction of a qualified art teacher of the High School, Miss Katherine Kopman.

The old live oaks and dignified buildings of the picturesque campus impress everyone who enters Newcomb. These conditions are favorable to growth in appreciation; they are a factor in Newcomb's art educational influence. Her graduates are in demand: the director of the Manual Training School, New Orleans, is one of them, and throughout the Southern States, and elsewhere, they are occupying positions of great responsibility and honor. Her instructors are forever reaching out to larger and finer acquisitions. As great as has been her past, the present gives promise of a greater future.



By courtesy of The American Crayon Company

First prize drawing by Katheryn Andres, 12 years old, grade VII, New Britain, Conn. in their Crayon Investigation Contest.

The Industrial Arts in the Elementary School

By Frederick G. Bonser

Teachers College, Columbia University

Frederick G. Bonser

THE term "elementary school" is here used to cover that period in education in which the work should be common for all children without reference to sex, future vocation, or social status. It is the period for securing that common information, experience, and development necessary to intelligent living in any walk or calling of life. Just as soon as that period is reached where differentiation is desirable it is time to begin the work of secondary education, that which takes account of differences in knowledge and experience because of differences in personal needs in relation to social end points.

For the elementary school, subjects are justified by their having a body of thought and experience of fundamental and universal usefulness. That is to say, each subject is made up of those items of knowledge, and those experiences or activities which are found of value in relationship to daily life needs. Useful information, desirable habits of mind and action, cultivated taste and appreciation, and attitudes of social helpfulness, all so developed that they guide in the conduct of life, are the results which we hope to achieve through these subjects of study. In number, it is that information and those habits of action which enable us to solve the daily problems of quantity and economic value; in history, that information, those attitudes of mind, and those appreciations of conduct values which help us to incorporate in our own conduct the cumulative experience of past human activities; in English, those ideas of fact and relationship, those practical habits of usage, and those appreciations of lofty ideals and beauty of form which result in correct oral and written expression, intelligent interpretation of the thought and feeling of others, and the choice, enjoyment, and inspiration of the finest literature produced by the masters of thought and language; and so on for the other appropriate subjects —each is an organized phase of human experience which has grown out of something fundamental to our getting on well in the world from day to day. Each subject justifies itself from a purely pragmatic standpoint when forced. Now it is here offered that industrial arts as a school subject must justify itself on the same basis—it is an appropriate subject for the elementary school because all children need intelligence, insight, and appreciation of its subject matter and the activities involved in appropriate expression through its materials.

From this point of view, it will at once appear that primary emphasis will not be placed upon the production of industrial commodities, but rather upon intelligence and cultivated taste in their

choice and use. In not a single field will all of the children function as producers, but from every field worthy of study they will all function as consumers. The largest problems are those of developing an appreciative understanding of industry as it is today, realizing its social problems, and cultivating intelligent judgment and appreciation in the selection and use of industrial products.

To secure these pragmatic values means far more than mere manual training—training of the hand or of the hand in co-ordination with the eye. It means a well organized body of thought giving insight into industrial materials, industrial methods, and the social aspects of industry; it means a study of the evolution of industry, showing how the complex factory system with organized capital, organized labor, and highly specialized machine production have grown from the simplest beginnings; it means a most practical study of design—of the principles of design in relationship to their appropriate usage in specific products—as design is used today and as it has developed among different peoples in different times; and it means participation through the making of many projects—more design and hand work than we have had in the past, not less—all chosen with reference to their appropriateness to illustrate the major principles of design and construction, and the fuller appreciation of the industry which they represent.

Perhaps a few illustrations will help to make the range of this work more evident. The study of the making of books is not primarily to produce skill or craftsmanship in book making—few, if any, of the children in a given school will become book binders, and if any of them do it will probably not be handicraft bookbinding. The purpose is rather to develop insight into an industry whereby the race has put itself on record for untold generations, improving its means and methods step by step, until the great mechanical type-setting machines, the great presses, and the almost intelligent binding machines are subjects of study and understanding: to study the design involved in the choice and arrangement of type, the arrangement of the page, the choice of paper, the design of bindings and cover pages, and the appropriateness of all to unity of the author's thought and feeling with the form and dress the book maker has given it; to learn of the debt we owe to Gutenberg, Coster, and Caxton, and perhaps to enjoy a part of Fust and His Friends with Browning; and to push on for a little way into social and even political questions—the great army of laborers engaged in the printing and publishing industry, wood pulp, and tariffs, and the place of the press in business, education, and enjoyment. The historic aspects of the work may lead a long way back to notch sticks, obelisks, tablet and stylus, papyrus, parchment, scroll, primitive inks and quill pens, the monk and the scriptorum, rare illuminated texts, wood block printing, and coming nearer to the present, to movable metal type, the linotype, the monotype, etchings, steel engravings, lithographs, electrotyping, and all of the marvelous possibilities of printing in form and color of today. In this study many masterpieces in painting will help to give correct ideas of

numerous elements in the book maker's art, and the historic summary will doubtless include the appreciation and enjoyment of Alexander's Story of the Book from the Congressional Library at Washington. Many of these problems will include hand work involving design and the use of the appropriate materials in such a way as to clarify thought and at the same time secure all of the possible development of sense training and manual dexterity, and in every case in relationship to a specific situation appreciated as valuable. The work will involve the study of many, many books, new and old, of current magazines and other periodicals, of street-car, bill-board, and other forms of poster advertising, and of printed matter wherever found. Is there not here a subject matter which will make books and the great art of their making mean vastly more than is usual—which will develop permanent interests in books, and which will cultivate judgment and taste in the selection of books in all particulars of form? Compare this body of thought, experience, and activity with the usual course in paper folding, cardboard construction, and book binding to see wherein the difference lies.

For textiles, a vast and interesting field is alive with possibilities. Consider cotton, wool, linen, silk, and all of the minor fabric materials—how much everyone needs of pragmatic information about spinning, weaving, dyeing, adulteration, care, design, and economic value of these! And how empty of most of these are the usual courses in sewing! In the field of pottery lies another fertile source of such material, reaching all the way from Grandmother Kaolin to the art treasures and the daily utensils of every civilized home of the twentieth century. Not merely a little clay modeling, but the study of a great, world-wide industry with a host of heroes, and one of the finest of fine arts created by man—this is the field. So too, we may study the woodworking industries—not merely a whisk broom holder, a towel rack, and a tabouret; the metalworking industries—not merely a bent iron lamp bracket and a hammered brass pin tray; the great food industries with all of their variety of materials, interests, and possibilities—not the mere making of soups, or baking of biscuits, or broiling of steaks, valuable as these are.

In all of these industries, what we have is a great body of thought and experience of primary importance to everyday needs. Hand work is required in its study chiefly for the purpose of clarifying ideas and cultivating appreciations. The whole subject is first of all head work, secondarily hand work. But this does not mean the reduction of hand work—the appropriate development of this course requires far more total time than is now given, and more time for the hand work than has heretofore been customary. The purpose is to develop intelligence and appreciation in all of the children for meeting their life needs in these fields. Few of them will make furniture, but all will use it; few will give much time to the making of garments, but all will wear them; few will make books, but all will use them. Shall these products used be of good quality, or poor; of reasonable price, or extravagant; ugly or beautiful?

The answer is determined by the efficiency of education through all forms of its method—information, participation in production, or appreciation of value and beauty in forms studied.

The organization of the industrial arts for the elementary school, where skill is subordinated to thought content, and where the vocational end point—immediate productive efficiency—does not dominate, makes possible the unification into one subject of the four frequently found in elementary schools—manual training, domestic science, domestic art, and drawing. The organization of this subject consists in the selection of appropriate units of each of the several industries of fundamental importance for each grade, the work progressing from grade to grade in the difficulty of its subject matter, and in the complexity of its structural problems. The opportunities for drawing and design of projects in these fields will furnish motivation for practically every possible problem, and this in relationship to usage. To be sure, there will be need for practice work in drawing and design not altogether directly a part of the industrial arts work, but that which is directly related will give meaning and appreciable value to the practice.

In considering the foregoing, it must be clearly recognized that the work is not for specific vocational ends. When definite vocational efficiency becomes the primary end point, the work markedly changes in several particulars. Skill, with all of the elements into which it can be analyzed, becomes a factor of very large importance. The field narrows down to prolonged, careful training in those activities which result in the efficient production of a given commodity. While, in the elementary school, all of the skill which the child is able to command reasonably should be required in the numerous projects undertaken, the value of the work will by no means be judged entirely by the excellence of the finished product. In vocational training, excellence of product is used much more appropriately as a measure of progress. But even here, adaptability, the utilization of experiences and ideas from other fields, and originality in design and construction are elements of high importance. Much of the work begun in the elementary school might well be continued in such advanced forms as are appropriate to the increased ability of the student parallel with the rigid training in technical execution. To the skill of the artisan, this would add the spirit, inspiration, and creative enjoyment of the artist.

However, the education and training of the special worker is not the province of this paper. The purpose here is to try to indicate that the work in the industrial arts in the elementary school should make, primarily, for intelligence, insight, and appreciation in living at its best the everyday life of the consumer, regardless of the means by which he earns his livelihood, with a firm confidence that whatever is best for realizing this purpose in the elementary school is best also as a foundation for life work, whatever that work may be.

Methods in Teaching Elementary Construction

By Lucy D. Taylor

Instructor in charge of Department of Applied Arts in Public Schools, Massachusetts Normal Art School, Boston

THE desirability of teaching some form of constructive work in the elementary schools is a generally accepted fact. A wealth of material in the form of problems for grades one to six is available, material that is interesting and if properly used, educative. Clever, good devices for getting results are numerous. But with all the enthusiasm, all the problems, all the devices, something is wrong. The children, after three or four years of the work are not displaying the power that was expected, the results are far from being commensurate with the time, energy, and money that have been spent. The visiting supervisor going into a fifth grade classroom who shows the children the pattern for a simple envelope and asks them to work out an envelope to fit a paper of given size has a right to be disappointed when the children fail even in using their rulers to measure properly, to say nothing of failing to work out the pattern without minute and explicit directions from her. Whatever information they have acquired has not become usable. Unless the power to see shape, position and size relations and to use the proper means to produce them has been developed, verbal formulations of them are useless.

The difficulty must of necessity lie either in the choice of material for the grade, that is, in getting the right kind of problems for children of each age, or in the way of presenting the problems, or perhaps in both. Our methods of presentation certainly need overhauling, —and this in turn means an overhauling and re-adjustment of the problems for each grade.

A consideration of the methods of teaching commonly employed as seen from the standpoint of the aims of instruction will make this clear.

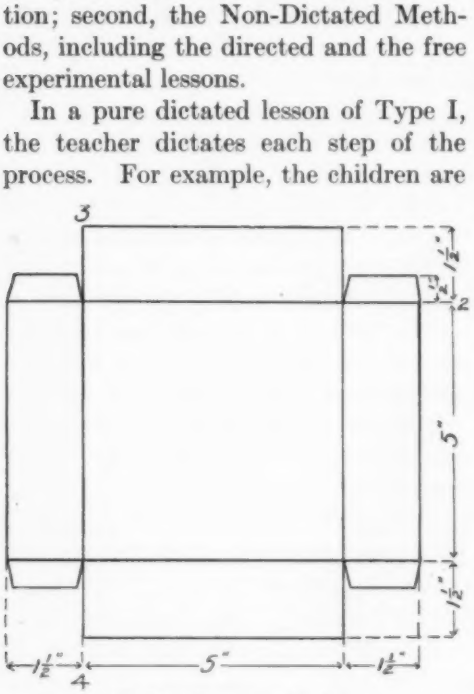
The aims may be summarized as follows:

Elementary construction is taught to furnish children with clear ideas of shapes, positions, and measures; with clear ideas of standards of workmanship; to teach them to use their hands skilfully; to train their mechanical ingenuity, that is, to train them to think constructively, to assemble parts into wholes and to adopt materials to given ends with the greatest possible economy of material, time, and labor. In other words, we expect as results a fair amount of information, a fair degree of skill in the manipulation of tools, and good habits in thinking about mechanical things.

Observation of the methods commonly employed makes it possible to classify them in two groups, first, the Dictated Methods, including two types of lessons,

the pure dictation and the part dictation; second, the Non-Dictated Methods, including the directed and the free experimental lessons.

In a pure dictated lesson of Type I, the teacher dictates each step of the process. For example, the children are



The flat of a rectangular box.

to make a simple box. The teacher shows the model and either asks the class what it is or makes the statement herself, adding that they are to make the box. She proceeds immediately with the making process. She draws a pattern, carefully dimensioned, on the board, or has a large drawing made on paper. As the first line is parallel to the upper edge and one inch from it, she tells the children to measure down one inch from the upper left corner on the left edge of the paper and make a dot. She probably shows them on her diagram exactly where she wishes that measurement made. Possibly she has them hold their fingers on the one inch mark on the ruler, while she walks rapidly around the room to make sure that each child knows the inch. The dots are made. She then gives the next direction for the location of the corresponding point on the right side of the paper; and so on, step by step, until the pattern drawing is completed. The patterns are cut out, the teacher carefully marking with red chalk the lines on which the children are to cut. Finally, the sides are folded. The problem is completed. There are very few wholly correct boxes; there are a great many mediocre ones, mediocre because of inaccurate measurements.

The children are supposed to have gained in ability to follow directions, gained in accuracy in the use of ruler, pencil, and scissors, and to have acquired some knowledge of measures and how to use them, of how to construct objects.

They may have learned to follow directions, to move their hands when the teacher's voice said, "Move." The value is questionable. They may have gained a little dexterity in the use of the ruler and pencil. But they have not really learned to *use* measures, to think measures, or to think about the construction of objects. Every bit of thinking has been done for them by the teacher. They have not understood why a single measurement has been made; they have not even known what the lines were drawn for or what part they were to play in the completed model. All that the children have done is to listen attentively, trying to understand words the teacher used, to see the places on the paper and ruler to which she referred, and to direct their hands to do as she said. The result is too often confusion. No wonder that

they fail when placed on their own responsibility. Evidently this method is not likely to produce all the results that we started to achieve. It may produce one—a certain amount of manual dexterity. The question of the value of introducing any subject into a curriculum with that as its sole aim is an open one. The fact that the method given above is, with various modifications, the usual type of lesson used in teaching elementary construction is unfortunate and partly explains the failures.

The majority of the objections cited above are overcome in the part-dictated lessons. Assume that the children are to make the same box. The teacher shows the class the completed model, names it and states that it is the problem for the day. Then she proceeds to teach the pattern, instead of setting the children to work blindly. She opens the pattern. The children count and name the parts. She draws the pattern on the board as it will look on the paper. The children locate and name the parts which represent the corresponding parts on the model. Then she proceeds to dictate the measurements, step by step, until the model is completed. She may possibly precede the dictation of the measurements by a discussion of the sizes of the parts. For example, the sides of the box are one and a half inches high; therefore, line 1, 2, must be drawn one and a half inches from the upper edge of the paper. How far away shall we draw line, 3, 4? The discussion would be followed by the dictation of the measurements, step by step, until the problem was completed. There are probably no failures. The measurements are good.

The children, as a result, understand what the lines are for and how to draw them; they have gained a good deal of dexterity and have produced an accurate result; they have some knowledge of measures and know how to use them; they can follow directions intelligently; they have learned to see shapes and positions.

Apparently most of the desired results have been achieved. The method, then, is a good one. Reference to the aims discloses the fact that in addition to clear ideas of measures, manual dexterity, and ideas of standards of workmanship, there is another all important item, the development of mechanical ingenuity. Analysis of this method shows that it is weak in this respect, that the children are not taught *to plan* and to use measures to gain an end that they understand and have determined for themselves. They have been taught to understand the object which someone has planned, that is, how to copy intelligently the result of the thinking of someone else. For results in technique, in tool handling, the method is excellent. It is far too seldom used.

There are still two kinds of lessons to be considered under Type II, Non-Dictated Methods.

In a directed lesson of this type, the teacher probably would introduce one subject in the same way by showing the completed model. The first step in this case would be thinking how it could be made from a flat piece of paper. First, what information is necessary? What must we know before we can build our pattern? By question and discussions the children discover that they must know how many pieces the

pattern has, how they are placed in relation to each other, their sizes and shapes.

The next step is that of having the children think out for themselves the way to put those shapes and sizes together to get the box, that is getting the necessary information and using it. The teacher may start with a single part as the base, get the size and shape, then the sides, having the pupils draw them on the board, assembling them bit by bit into the pattern. When the assembled pattern is finished, the parts in their right places with the right dimensions correctly placed, the children may be allowed, possibly, to cut out a rough draft to make sure that there are the right number of parts to fold up correctly. The board work and discussion would be followed by a summary, naming of the parts and sizes to be sure that the children understand the pattern.

But the children are not ready to go to work yet. There is another important thing for them to learn. So far we have only taught them pattern; we have not taught them how to get it from a piece of paper of given size. Two ways are suggested. First, by questions and class discussions have the children discover that they can build the pattern up on the paper by working from the center of the paper. For example, the base is 5″ x 5″. Where shall I draw it? How much room must I leave for each side? How long and how wide must my paper be? How can I find the center? How far away from the base shall I draw the four lines of the sides? How can I be sure to have them parallel? Second, flatten the pattern out. By question and statement direct the attention of the children to the fact that there are long lines which go all the way through the pattern; that is placing it on the paper, we can economize in time by locating those long lines. Build the pattern on the paper or on the board as though on the paper as *the children* dictate step by step. Sample questions would be as follows:—

How large must the paper be to make a box of this size? How can I find out how long? How wide? Which line will be the best one to draw first—from which can I make the most measures? How far from the edge must it be? How can I be sure to get it exactly straight? What line shall I draw next? After all the lines have been drawn review the parts and dimensions to be sure that everyone has a clear idea of the pattern. Then the children are ready to go ahead and make the individual patterns.

Analysis of this type of lessons reveals the fact that the children get all that they get from the best type of dictated lesson, plus the training in thinking constructively. They learn to think in terms of measures, shapes and positions; the accuracy of the results show a marked increase over the results obtained in other ways because there has been an evident purpose in having the result accurate. Moreover, we have begun to train their mechanical ingenuity.

After a series of lessons of this sort, the children really begin to think in terms of pattern. It is not necessary, then, to go through the long thinking process with them. A few minutes dis-

cussion will suffice. I watched a class last year in which this method had been followed. The children had never, so far as we know, made envelopes. It had not been one of their problems in the preceding grades. A fairly complicated pattern was shown them. Not more than three minutes were taken for the discussion of that pattern. The children noted the number of parts, the sizes were given and they went ahead and did the rest. In forty-five minutes, the envelopes were completed. In a class of thirty-five there were not more than four or five pupils who did not get very successful results. Their envelopes were by no means failures.

Another type of lesson deserves consideration. Suppose the same model to be studied. The teacher shows the model and allows the children to take their papers, pencils, and scissors, and experiment in cutting and folding until at least a part of them discover that there are five parts to the box; that the parts have relationship of position and size. Then follows a class discussion and the lesson is completed by either dictation or free work.

Unless this lesson has been preceded by much pattern drawing its value as a method is questionable. The children waste a great deal of time in aimless, purposeless cutting. It takes them perhaps forty-five minutes to find out what they are trying to do, instead of learning how to think out patterns. As the only type of lesson to be used in a course, its disadvantages are marked. Slipshod, inaccurate work is bound to result and the children gain anything but clear ideas of measures, shapes and standards of workmanship. They may possibly develop some mechanical ingenuity. Even that is doubtful, for too many grow completely discouraged and settle back to wait until the half dozen bright children have solved the problem for them.

Summarizing, two types of lessons stand out as valuable, the part-dictated lesson of Type I and the directed lesson of Type II. The former places the emphasis on the technique, tool handling, the latter places the emphasis on constructive thinking as well as the tool handling. Each has its place; both can be used to advantage in any course. Where these methods have been employed, the pupils have shown such a marked increase in efficiency as to justify them.[1]

[1] Once subjects and general methods are settled, the teacher is ready to teach a specific lesson to a particular group of children, i. e., ready for devices. The only devices really worth while are those planned to meet particular needs at a particular time. John and Tom and Joe each have certain ways of thinking. The problem is to make John and Tom and Joe see the point, not to make an abstract child see it. Practically, that happy condition is not always possible. The classes are too large and the time too short. The following devices are suggested as types which have been successful in some classes in which the above named methods have been used. They may or may not be successful elsewhere under other conditions. Apart from an understanding of the method and its aims, they are absolutely valueless.

The teacher's problem is to find a simple obvious way to make forty children think out the parts of a pattern place them correctly in their relative positions and determine the proper dimensions—in the least possible time.

For grades 1 to 4, building up the pattern with pegs on the desks has been found a useful device. After the teacher has opened the pattern and the children have discovered how many pieces there are, have them make the base with the pegs on their desks. Let them discover that the same number of pegs must be used on each side—for the base is square. Then have them experiment in getting the four sides in position and of the right size. By the time the children have actually placed with their own hands the parts of the box where they belong, the pattern has become a real thing to them. The pegs are easily moved—little or no time is wasted in their use. There are no lines to be rubbed out. Moreover, they may be used for the next step in the lesson. Having thought out pattern, the children

Teaching by these methods obviously means a change in the choice of problems for the grades. Models that have the one virtue of being interesting to the children and the fault of being too complicated to be understood by them will have to be superseded by simpler ones. The statement seems reasonable. We have talked interest too long at the expense of increased efficiency. We must have models that are both interesting and understandable from beginning to end by the children. With the wealth of material already on the market, it should not be a difficult task for any supervisor to select models which will interest the children, train them in tool handling, supply them with very clear information about measures, shapes, and positions, and at the same time get them into the habit of thinking constructively, in terms of putting parts together to make wholes.

have to think out how to get it out of a piece of paper. The teacher is not going to take that training away from them to appropriate it to herself. Let the children experiment in placing the pegs on the paper of given size. Some children will start from the sides, some from the center, some at random. The results may be tied up by a general discussion and class choice of one way to work. The choice of one way is suggested simply because of time limitations. It is undoubtedly much better for each child to work out the way of getting that pattern from the paper for himself. That is seldom possible. Our classes are too large.

Another simple device is that of having the children cut the parts, one by one, from paper as they are named and their sizes given. The children may then find the way to place them in position on their desks, the emphasis being placed upon number, position and size relationships. Then the children are ready for the next step—getting the pattern from the paper. As in the peg device, the built up pattern may be placed on the paper and moved around until a satisfactory way of placing it and drawing lines has been found. Part of the work would be experimental, part would be discussion—with the use of illustrations from the work the children had been doing. Discussions of this nature must be carefully directed by the teacher. They call for much skill if they are not to resolve themselves into an experience meeting for the children or dictation from the teacher.

Another simple approach to the lesson is by way of blackboard work, done by the children. As the children discover the different parts, have drawings made on the board. Never mind if the base is drawn on the front board, one side on the back board, another on the side board. The first point is to make the children find all the parts. After all the parts have been discovered, they may be numbered and placed in position, i. e., another drawing made showing them attached to each other properly and with the dimensions placed. Then still remains teaching how to place the pattern on the paper. The blackboard may be used again; a large drawing of the sheet of paper made, and the lines located as suggested in the previous article on methods. Note that the children are to tell the teacher how to draw the lines. The teacher's task is to ask the kind of questions which will keep the children from wandering afield—which will introduce the new difficulties step by step. We are prone to command much and direct too little. Possibly the last part of this lesson may be made clearer if the teacher draws on a large piece of paper instead of on the board. It will then be possible for her to cut the model out and fold it up. The proof of the pudding is in the eating. This device makes it possible easily to show the children their errors as they are thinking out the patterns. A missing part, or a part too large can be quickly detected.

The task of teaching elementary construction in a way to bring the result of the children being able to use their tools intelligently and to plan simple models without minute directions is not such a tremendous one if we only go about it thoughtfully and take time to plan our campaign. Every point in each lesson must be as clearly thought out as if an arithmetic or a geography lesson were to be given. Haphazard methods, over emphasized devices and planless lessons yield only haphazard results. Results must be carefully planned for if they are to be of real worth.

CREATIVE GENIUS MAY BE DEFINED AS THE CAPACITY FOR HARD WORK, OR TO BE COMPOSED OF TWO PER CENT INSPIRATION AND NINETY-EIGHT PER CENT PERSPIRATION. *John W. Curtis.*

The Cottage Bungalow Living-Room

A group of analogous colors (Yellow central), with touches of the complementary (Blue-Purple)

COURTESY OF
THE SHERWIN-WILLIAMS CO.
DECORATIVE DEPARTMENT
601 CANAL ROAD CLEVELAND O.

THE SCHOOL BEAUTIFUL

A True Art Center—Interlaken

By Georgia L. Underwood

Rolling Prairie, La Porte County, Indiana

FROM A PERSONAL LETTER TO THE EDITOR:

Instead of writing an article myself, I asked one of the parents to do it who has been here all year with two of her boys. Mrs. Underwood visited the school for the purpose of entering her children—15 and 16. She had no intention of teaching—was not a teacher. We saw possibilities in her as a power in the school and surprised her by asking that she join us. She has been most successful. *Raymond Riordon, Superintendent.*

The way to the school building

THERE were so many tired, anxious, care-worn faces on the streets of the great city that hot afternoon, so many differences of dress, of feature, of form, that over it all seemed to be one great big "Why?" All of life seemed one huge interrogation point, and the stress and strain to find an answer seemed to be sapping all the joy out of life.

I must get away from it all, I thought, it will suffocate, choke me, and here is just the refuge, the Great Art Gallery. How cool and restful were the marble halls. How satisfying the beauty there. For a long time I sat in the Inness room until I lost myself in the atmosphere of the meadows, caught the last rays of the setting sun, felt the freshness of the morning sunrise, and understood some of the peacefulness of beauty.

But I knew I had to leave that restful place and go back into the crowded streets, stumble over the material things which, mole-hills in reality, man had heaped into mountains; must look again into faces drawn in distress; upon crippled bodies and slaves of poverty.

How far apart these worlds were; how far away was the street and its crowds from the Gallery and its pictures. Yet they were divided by but a door which swung easily upon its hinges and through which anyone might enter.

As I walked down the stone steps to the street, I saw a little boy standing with arms stretched to right and left, holding some large empty cardboard boxes, which the wind was trying its best to wrench away from him. The string which held them together was lying on the sidewalk; if he loosened his hold for a moment the boxes would scatter in hopeless confusion. He

The Cottage Bungalow Living-Room

A group of analogous colors (Yellow central), with touches of the complementary (Blue-Purple)

COURTESY OF
THE SHERWIN-WILLIAMS CO.
DECORATIVE DEPARTMENT
601 CANAL ROAD CLEVELAND O.

THE SCHOOL BEAUTIFUL

A True Art Center—Interlaken

By Georgia L. Underwood

Rolling Prairie, La Porte County, Indiana

FROM A PERSONAL LETTER TO THE EDITOR:

Instead of writing an article myself, I asked one of the parents to do it who has been here all year with two of her boys. Mrs. Underwood visited the school for the purpose of entering her children—15 and 16. She had no intention of teaching—was not a teacher. We saw possibilities in her as a power in the school and surprised her by asking that she join us. She has been most successful. *Raymond Riordon, Superintendent.*

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From left to right: The Jewelry Shop, the Camp Club House, and the Dining Hall.

looked so worried and anxious, making no appeal for help, simply studying his own problem.

He readily accepted my offer of help and soon we had the string—just long enough to pass over once,—in place. The boy slipped his arm through it and started on.

Just a moment later, I heard amid the din of the street, a sound of falling boxes, and looking around I saw them all scattered and the wind hurrying the lids in various directions down the street.

"Oh, gee, I can't carry these things if the wind blows that way."

"Come here," I said, "back of these big steps where the wind cannot catch us, and we will tie them up again."

All the discouragement of the situation was uppermost now, and as we pulled up the boxes and pieced out the string, he said,

"You bet you I won't keep this job, any fellow can have it that wants it."

"Why?" I asked.

"Oh, how can I carry all these boxes; they ought to get a wagon to do it."

"But," I said, "there is a way to do it and they thought you would find the way, that is the reason they gave the job to you. The wind is teaching you how, and when you have learned how, it will be just fun; and if another fellow takes the job, he will have the hard time you are having now. Why, you will be the only fellow in the office who will know how to do this after your lesson today and what a pleasure it will be to do it next time."

"Oh, well, I guess I'll stick to it, there ain't no fun in giving up, and every job is hard."

"And every job can be easy and full of fun to the fellow who sticks to it," I called, as he walked away with his boxes on his arm. He smiled and I contrasted that last expression of joy with the first one of misery, and found my difference between the inside and the outside of the Art Gallery.

This big city is called an art center.

At the left: The Wood and Metal Shop. At the right: The Boys' House.

Does it radiate its joy to the hearts of men? The art rays cannot penetrate the material, the artificial world, and so the real, the true, the beautiful is lost.

If the wind does not help material progress it is condemned; great blocks of stone and brick stand instead of woods and fields, the light of the sun is life-giving in that it is the money making time; the sinking sun leaves but a hopeless darkness.

The beauty of the Art Gallery and the little boy of the street were so far apart —Why? Why could he not see the beauty of nature and find the joy in his task? He was not a part of the great art center though living in it.

On the gentle rolling prairie lands of Indiana is a little community known as The Interlaken School for Boys. A beautiful lake lies peacefully in the valley. The surrounding slopes are templed with trees and paved with wild flowers; the fields, garden, and orchards give a long restful vista. A group of little cottages on the lake shore bespeak a simple quiet life; a larger building beyond offers hospitality to great numbers. Shops are dotted here and there. The log-house is most harmonious in its setting, and the dining hall, though large, is made cosy and homelike for the little family groups.

Living close to Nature, working in God's great out-of-doors for half the day attending the needs not only of the people of the community but of the animals, plants, and trees, the receptive eye of the boy accepts the beauty of Nature; his active intellect observes the laws of Nature; and his developing soul catches the peace of Nature. There is beauty found in helpfulness, harmony, obedience, and goodness in all things. Interlaken is an Art Center.

The class room and outdoor work act and reflect upon each other as do, or should, the thoughts and actions of life —in perfect harmony of cause and effect.

In the class rooms are worked out the designs for a box or a bench, for a necklace or a ring; for a house, or a garden,

The first tent of the first camp at Interlaken.

MORAL EDUCATION BEGINS IN MAKING THE CREATURE TO BE EDUCATED, CLEAN, AND OBEDIENT. THIS MUST BE DONE THOROUGHLY, AND AT ANY COST. *John Ruskin.*

The Faculty House. At the right appears the Jewelry Shop and Camp Club House. The lower picture shows the Superintendent's House and occasional place of assembly.

INTELLECTUAL EDUCATION CONSISTS IN GIVING THE CREATURE THE FACULTIES OF ADMIRATION, HOPE, AND LOVE. *John Ruskin.*

all in accordance with the laws of the beautiful—just a thought on paper and, as all thoughts must be carried into action if character is formed, these designs are expressed in their material form in the wood and jewelry shop, at the forge, in the pottery, in landscape gardening, in house architecture; in the building of roads, and in all handicraft; and because beauty is known through a sympathetic understanding of Nature, there is a reward of joy through work which comes only in the art center where Nature teaches through plants, animals and man, all her needs, and man's greatest reward in meeting them.

Here that artistic temperament in its unknown longings, and impulsive activities,—so often misunderstood in the home,—remains not only a matter of feeling alone, but is developed into a matter of intellect and activity, and strengthens character.

Such time given to the development of the finer instincts of the boy is well invested for not only his expression but his appreciation of art value gives him a wonderful new valuation of all things.

Why have we lost the joy which is ours, by Divine Right, in all that we do in school, in work, in play? Because we have lost the appreciation for the beauty that is in it.

Art is a great universal language, the culmination toward which all civilization tends; it purifies taste; respects the beautiful,—abhorring always that which is not beautiful—and therefore is of tremendous educational advantage, radiating through all the departments of learning.

How can we reflect beauties if we are not near them? We must know and love that which we would reproduce.

In this Art Center—Interlaken, the boy lives with the beautiful, weaves it into his work, sees usefulness and helpfulness as the two great factors of beauty in Nature, and finds himself in his expression of self, hears what Nature says in him rather than to him.

Only little things can be done in a minute, and apart from other things; we must live with and understand if we would give art to reflect that which is worth while. The Shasta daisy was once a tramp by the roadside. Burbank saw its beauty which no one else had seen; he lived with it, worked with it for twenty-seven years and made it Queen of Flowers.

Through the boy this Art Center radiates to the home, to the town, and because he knows the beautiful he is content only to abide with it—the home is altered, the town is changed and people are helped because he lives.

If information is simply to know, it satisfies a curiosity which is but little; if information is to gain in order to sell, it becomes avarice; if information is gained simply to build self, it becomes selfishness; if information is gained in order to help others, that is because of love, the only worthy motive. Such a motive is given to the boy of the true art center where beauty gives forth her fruits of helpfulness. So his life to be beautiful and joyous must be helpful.

Nature gives us sunshine—yes, plenty of it for everyone—but we must get into it if we would be nursed into growth.

Again the crowded street of the great city, people are choking, smothering, crushed with the unreal and the false. A mother leads her son away from it all

A play room, work room, and a reading room at Interlaken.

to a true Art Center, there at Interlaken, the life unfolds as life intended it should, drinking in the sunshine and beauty, giving forth its usefulness and joy. An opportunity for the expression of the intellectual, physical, moral, and social nature, results in a well rounded development which alone deserves to be called "education."

The mother is watching her son as he forms his standard of the beautiful and true, and knows that he will carry a ray of the real Art Center which will penetrate into dark lives, lighten homes, and reconstruct towns, for he will have caught the great vision of work in which the unlovely will fall away and the beautiful live forever.

I RESPECT THE PEANUT VENDER WHO SELLS HONEST MEASURES AT FAIR PRICES PROVIDED HE IS UNPREPARED TO RENDER A MORE USEFUL SERVICE TO THE COMMUNITY; BUT I THINK WE AGREE THAT A MAN WHO HAS RECEIVED SIXTEEN YEARS OF SCHOOLING AT PUBLIC EXPENSE SHOULD MAKE A GREATER RETURN TO SOCIETY THAN IS POSSIBLE AS A STREET VENDER. HE IS NOT A CITIZEN BUT A PARASITE IF HE MAKE INADEQUATE RETURN TO THE PEOPLE FOR THEIR GENEROSITY IN PROVIDING FOR HIS PREPARATION FOR USEFUL SERVICE.

John W. Curtis.

WHAT THE LEADERS ARE DOING

Good Ideas from Everywhere[1]

NOT WHAT WE HAVE BUT WHAT WE SHARE,
MAKES EACH MORE RICH AND ALL MORE FAIR.

NOVEMBER is the month of in gathering. The last of the year's increase is brought under cover. The bins are filled with food and fuel. Everything is made trim and snug for the winter's siege. While returning thanks for all we have received we begin to anticipate with pleasure all we shall give. Thanksgiving prepares us for Christmas. In school, ingathering must precede giving. First, we must gather ideas; we must decide early upon our Thanksgiving, Christmas, and New Year's projects. Next, we must gather materials with which to bring them into shape, and, by practice, the skill that will enable us to give our ideas beautiful form. This year let us lead the children to choose intelligently a few worthy projects, within the range of possibility, and to work them out as perfectly as their powers will permit.

Kindergarten[2]

GIVE SPECIAL attention this month to the thought of Thanksgiving. Thanks for the harvest, thanks to the harvester, and thanks for all life.

How better can we observe the individual child, than to so arrange our morning's program, that there shall be a half hour during which each child shall do (lawfully) as he pleases, freely using any of the materials?

Why not let each child have a box of crayons with *many* colors, so that during the free time he may have the fun of playing with the color he loves. It also gives the kindergartner a chance to observe how much of "an eye for color" the child has.

Under each window in my room there was an available space about nine feet long and one foot wide. My dream for a number of years had been to make some arrangement whereby each child could have his own locker in which to keep his material. A carpenter divided each space into twelve compartments, each about 9 x 9 x 12, open at the front, with one long cover which dropped forward exposing all the boxes. There should be a bracket so placed underneath, that when the cover is

PLATE I. A sketch of a bowl of fruit to be made from paper by kindergarten children.

dropped and hangs down, it cannot be pushed back by the children when they stand in front of their boxes and so break the hinges. Toward the end of the year each child had in his box: the third, fourth, fifth, and sixth gifts; a box (made by the kindergarten) in which he kept his sticks, and another for his tablets; a small vaseline jar full of paste; a small blotter and piece of enamel cloth; a box of crayons; his Japanese napkin. On the side of each compartment, near the top, and about three inches apart, were placed two medium sized curved brass hooks, from one of which hung his scissors; his pencil and brush lay across the two. There was a place for everything and each child was expected to keep his locker in perfect order, which he enjoyed doing. When

[1] The Editor invites contributions to this Department. Brief accounts of successful projects accompanied with samples of pupils' work will be promptly acknowledged and if published will draw for the author one or more SCHOOL ARTS MAGAZINE coupons, good towards subscriptions or in trade with the School Arts Publishing Company, 120 Boylston Street, Boston, Massachusetts. See advertising pages for goods.

[2] In charge of the Boston Froebel Club. Address Miss Lucy H. Maxwell, 125 Kent Street, Brookline, Mass.

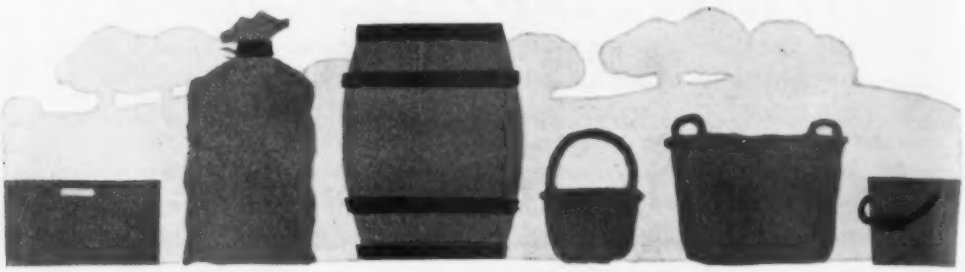


PLATE II. Some of the receptacles used in harvesting. Paper silhouettes in one and two colors.

the time comes for free play he has the pleasure of taking from his box whatever he chooses to work with. L. H. M.

CLAY WORK. A box in which to keep clay is made of wood stained to match the finish of the room. It is 12 inches deep, 17 inches wide, and 24 inches long, and should be lined with zinc, including the hinged cover which fits over the top of the box. The box has a handle at either end and castors so it may be easily moved from one place to another. It will hold about seventy pounds of clay. The clay should be put into the box in small pieces and sprinkled with water as it grows too hard for use.

LINES OF WORK:

1. *Free use of clay.*
2. *Ball Forms.*
   - Small balls
   - Large ball
   - Nest and eggs from balls
   - Bowl from ball
   - Flower pot and saucer, etc.
3. *Impressions on tiles.*
   - Borders of thumb impressions

   Let the children draw the border lines with a skewer holding the skewer horizontally so the line will be smooth. You may do the same with acorns, acorn cups, leaves, figures cut from heavy paper, etc. When using leaves or paper figures an attractive tile may be made by stippling the background with a skewer before removing the object.
4. *Ball designs.*

   Make several balls of equal size, arrange them on a plaque and press them down a little with the thumb.
5. *Rolls.*

   Make the rolls about the size of a pencil, or a little smaller. Wind them up, teaching the children to fasten each new strip to the end of the last one used. When they can do this, teach them to build it up at the edge for a basket, bowl or vase. Leave it rough for a basket or smooth the outside for a bowl or vase. Use only one movement at a time when smoothing it.
6. *Life forms.*

   House, etc., from the cube.

   House on a tile,—arrange trees, walks, etc., around it.
7. *Flowers, Leaves, etc.*

   In relief on plaques. V. M. T.

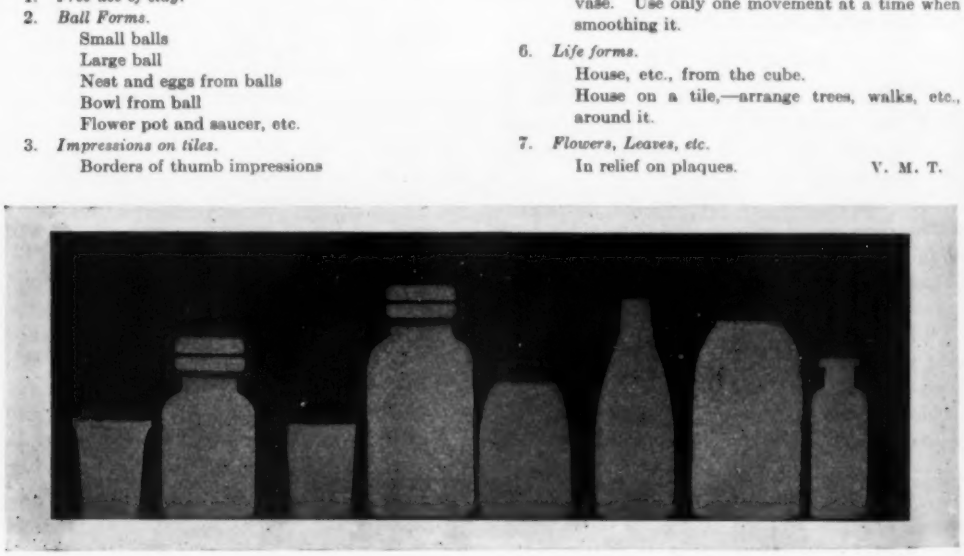


PLATE III. A shelf in the preserve closet. Silhouettes in two colors of paper.

PLATE IV. "In Oriental Pomp." Photograph of a cock turkey by R. R. Sallows, Goderich, Canada.

A THANKSGIVING BOWL. Draw with broad line, a large bowl—at least twelve inches in diameter. Sketch two parallel lines across the front of the bowl about one-half inch apart. Let each child cut one of these bowls and repeat some unit as a decoration between the parallels. Cut a slit following the line of the lower portion of the ellipse which marks the top of the bowl, and insert in this opening fruit previously cut and colored. This Thanksgiving bowl should be mounted on a gray mount which will give a desirable background for the white bowl with its many colored fruits, and when completed will make a welcome gift to one interested in the progress of the child.

A basket of vegetables may be made in a similar way, by sketching a market basket of

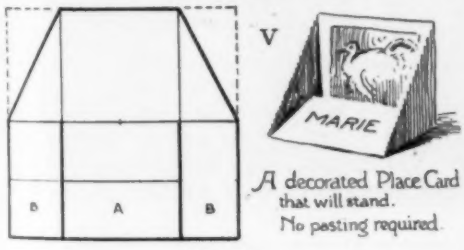


PLATE V.

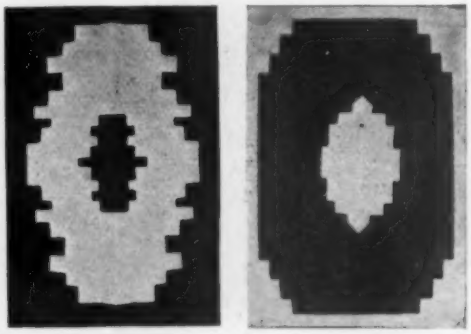


PLATE VI. Designs in paper for woven rugs by third grade children under the direction of Jennie B. MacKintosh.

life-size proportions, on dark brown paper. This should be cut out and fastened against the wall ready for the potatoes, carrots, beets, pumpkin, etc. The children should mark around the vegetable model forms, cut on the lines thus made, and later, paint or color with crayon in the natural color of the vegetable. Each child should contribute two or three vegetables for this co-operative basket. L. B. P.

Primary

HARVEST and all that it implies should be the central thought during November. It is so rich a topic we are embarrassed with possibilities.

SEED PACKS. Select two or three good examples of how the plants store away seed for use next spring: a big pod of some kind, a pumpkin, a pine cone, anything large enough

PLATE VIII. A typical landscape in the wheat belt with a grain elevator. Rendered in colored paper. The kind of picture that grammar grade children like to make.

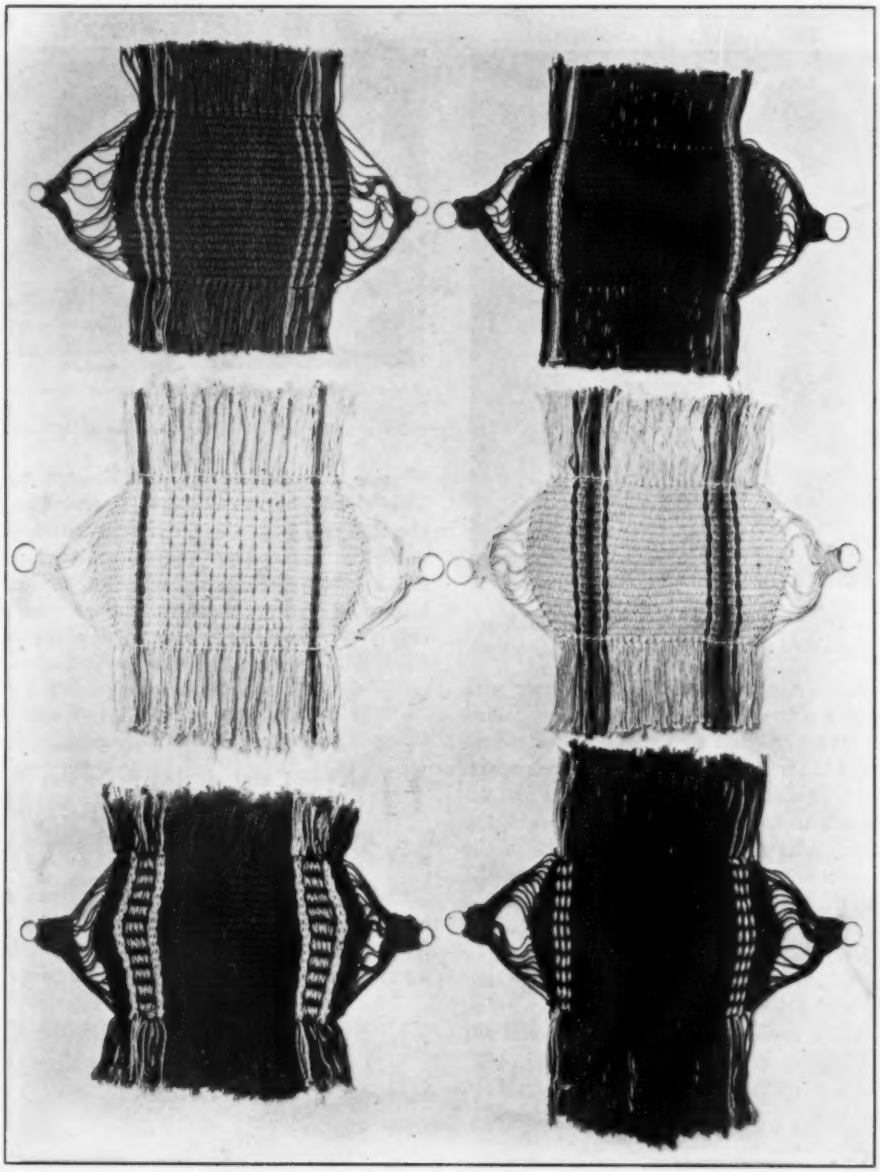


PLATE VII. Hammocks of macramé cord, designed and made by primary children, Minneapolis, under the direction of Miss M. Emma Roberts, Supervisor of Drawing.

SWING, SWONG; THE NIGHTS ARE LONG: A HOOT OWL AND A SPARROW:
THE OLD BLACK DOG IS BACK AGAIN; BUT HE'LL BE GONE TOMORROW.

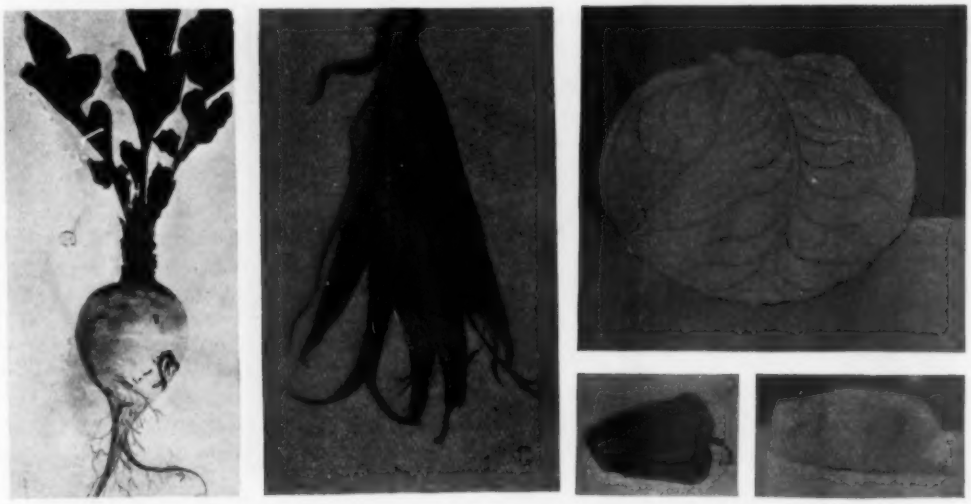


PLATE IX. Portraits of food stuffs. 1. A turnip in watercolor by Carroll Black, VIII, Augusta, Maine. 2. An ear of corn in colored chalk by Nina Allair, VIII, South Hadley Falls, Mass. 3. A cabbage in water color and pencil by Provost Thompson, VIII, West Groton, Mass. 4. A red pepper in colored pencil by Edna Beckwith, IV, Swissvale, Pa. 5. A potato in lead pencil by Clarence Scholefield, V, Meriden, Conn.

so that its seeds may be easily seen. Make these the subjects for language lessons and for illustration.

FOOD CACHES. Learn about the insects, birds, and animals that store food for the winter: ants, jays, squirrels, etc. Make sketches of the little people at work, and write about them.

HARVEST IMPLEMENTS. Baskets, buckets, boxes, bags, barrels, and whatever else is necessary: ladders, hooks, forks, hoes, crates, wagons, barns, siloes, grain elevators,

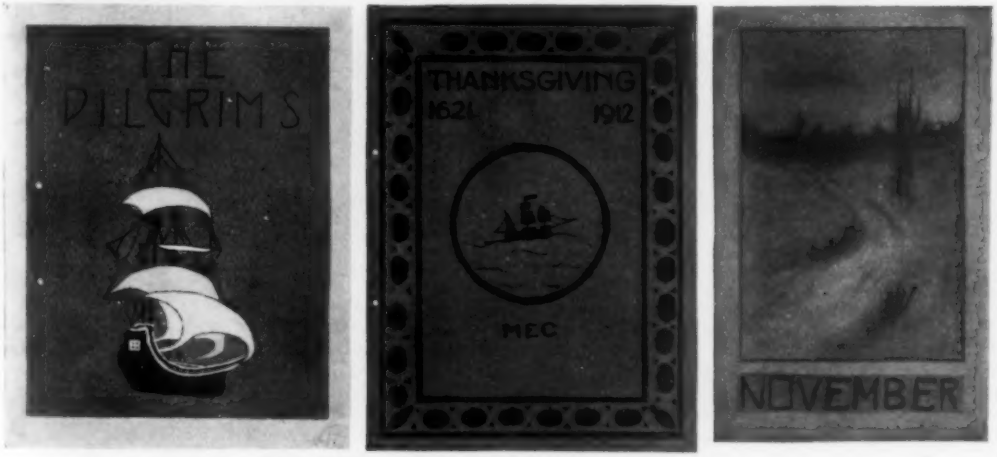
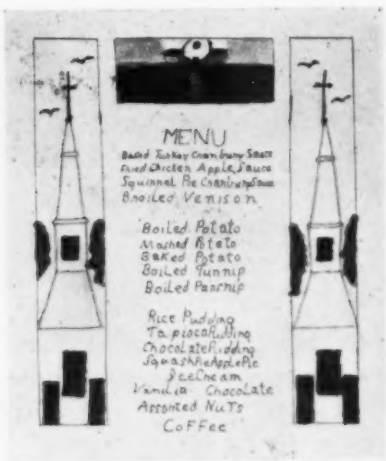
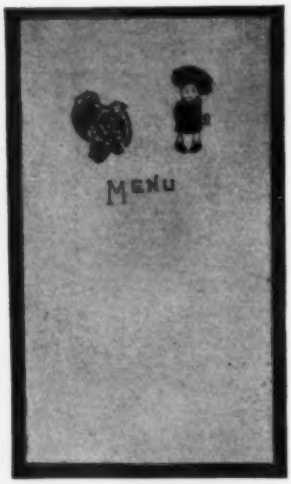


PLATE X. Three booklet covers by grammar grade children. 1. By Richard Scott, VII, Meriden, Conn. 2. By Mary E. Callahan, VII, Southbridge, Mass. 3. By Ingir M. Sohjoldagir, town not given.





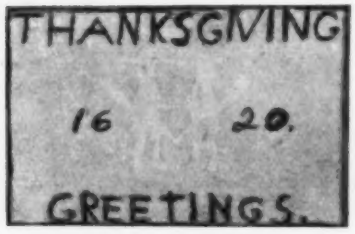


PLATE XI. Some Thanksgiving things by grammar grade children. 1. A menu by Norman Winter, VIII, Agawam, Mass. 2. A menu by Edward Harris, VI, Ashland, Mass. 3. A menu by Dorothy Miller, Agawam, Mass. 4. A postcard by Marie Egan, III, town not given. 5. A postcard by Willie Bouiller, V, Derby, Conn. 6. A folded menu by an eighth grade pupil, Derby, Conn. 7. Cover of a Thanksgiving program by Arvilla Kreber, VII, Collinsville, Ill. 8. A bookmark souvenir. Anonymous. 9. A written invitation by a grammar grade pupil, Dodge, Mass. 10. The outside of an envelope containing a Thanksgiving souvenir in the form of a card bearing an appropriate poem, by Margaret Zoudlich, VI, Easthampton, Mass.

THE DOING OF A LITTLE THING WELL PREPARES FOR DOING A BIGGER THING BETTER.

etc., are all good subjects for study, for illustration and for paper cutting. Plate II gives a suggestion of some of the simpler of these made from cut paper.

PRESERVING KITS. All the utensils used in making preserves of every kind are excellent subjects for drawing and cutting, coloring and making in November. Plate III shows a row of tumblers, jars, and bottles full of goodies. Keep all such cuttings in flat tones, without perspective. The objects in this plate are in correct relative size, in right proportion and contour. The placing of the silhouette, in a pleasing group upon the shelf of a dark closet is a good educational exercise.

THANKSGIVING SOUVENIRS. Plate IV shows a turkey under full sail! The plate is from a reproduction of a photograph by R. R. Sallows, Goderich, Canada. This turkey, and others drawn by Miss Cleaveland, page 228, may be used as the source from which to draw in the making of good invitations, tokens, and place cards. A simple and good place card of novel design is shown in Plate V. From a 6″ square of paper the flat may be made by folding (on the light lines) and cutting (on the heavy lines), and by adding a sketch of the turkey or some other Thanksgiving symbol, as indicated. The folding up and in of the part A holds the laps B B in place beneath it, and serves as the name card.

PLATE XII. A design for a harvest festival program by "L. S.," a pupil in the Ethical Culture School, New York.

TABLE MATS. Plate VI shows two designs for toy rugs made for weaving by primary children in Logansport, Indiana. Here is

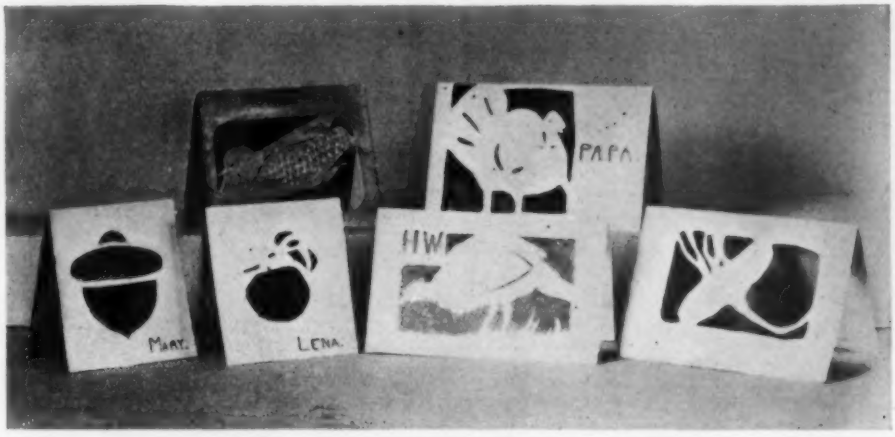


PLATE XIII. Pierced place cards that will stand. All but one of these were made by grammar grade children in Ottawa, Ill., under the direction of Miss Fanny J. Kendall. The card "H. W." was made to show one way of utilizing Miss Cleaveland's drawings on page 228.

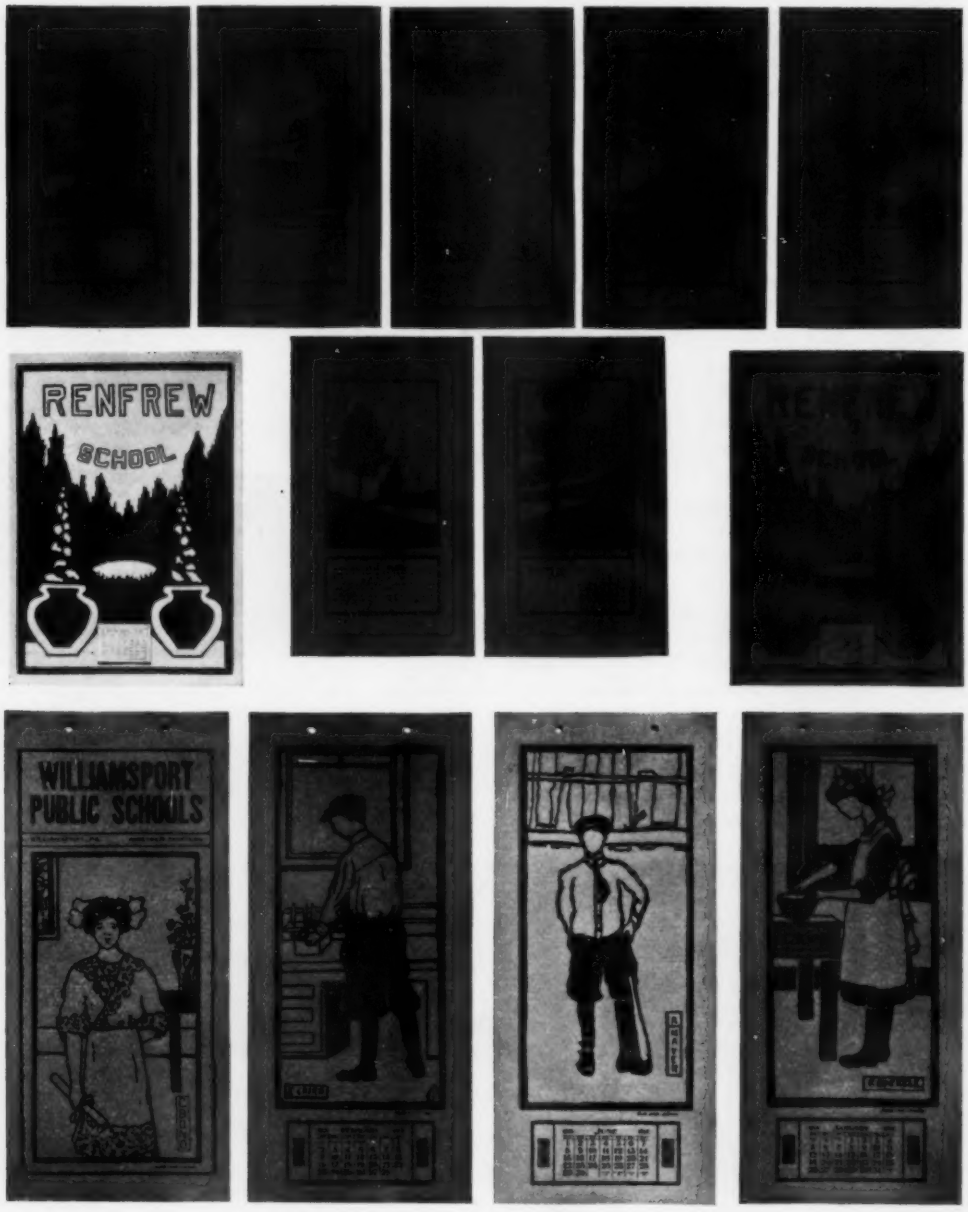
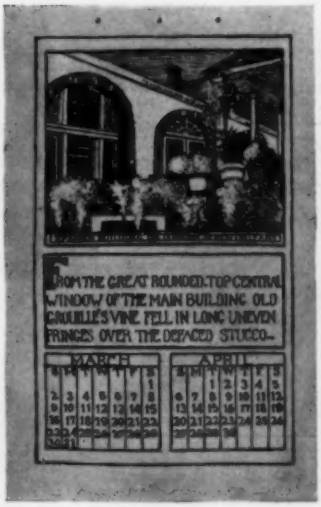


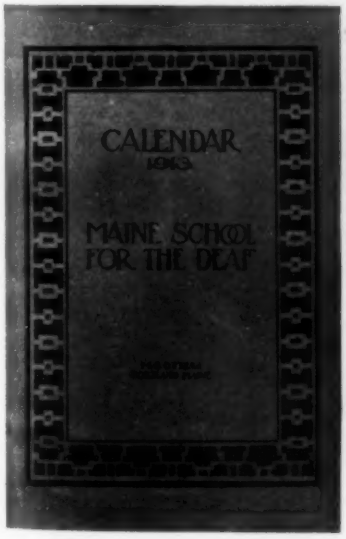
PLATE XV. Pages from four different school calendars: Seven leaves from Orange, N. J.; one from Renfrew, Mass.: the Renfrew calendar is shown before and after coloring; and four leaves from Williamsport, Pa.

PLATE XVI (opposite). Five different school calendars: Three leaves from New Orleans, La.; three from Greenville, Ohio; two from Portland, Maine; one from Venice, Cal:; and one from Springfield, Mass.

THE LEAF PLANTS IN THE LITTLE GALLERY GARDENS GLISTENED AND SHIMMERED IN THE HEAVY SEPTEMBER DEW
SEPTEMBER
OCTOBER


FROM THE GREAT ROUNDED TOP CENTRAL WINDOW OF THE MAIN BUILDING OLD GAUDLE'S VINE FELL IN LONG UNEVEN FRINGES OVER THE DEFACED STUCCO..
MARCH
APRIL

IN THE GARDENS THE BUSHES HAD STILL A RESERVE STOCK OF FLOWERS ALL READY TO BLOOM OUT WHENEVER THE SUN GAVE THE SIGNAL..
NOVEMBER
DECEMBER


CALENDAR
1913
MAINE SCHOOL FOR THE DEAF

1913 JANUARY 1913

1913 JANUARY 1913

PLATE XIV. A design for a postcard or place card for coloring. By Florence Prets Smalley.

what the Supervisor of Drawing says about the lesson:

We had such an interesting lesson in rug weaving in the third grade that I want you to see some of the results.

We folded 6" x 9" paper on its long and short diameters and then cut patterns using only horizontal and vertical lines. Sometimes it was the outer part that we kept to use, some times the center, and sometimes the center was cut again, giving each of us three units to use. In one room I drew spaces of different size, shape and position and let pupils place any pieces they chose in the best possible space relation to them. A good lesson in color followed. After criticism by pupils, we mounted our units upon colored paper that had to be reduced or changed to fit our design. The pupils enjoyed this work more than any kind of rug designing that we have done. One teacher was given instruction to have pupils transfer their patterns to cross-section paper, to insure their correctness for weaving.

This may be of some value to other teachers so I gladly send it along. JENNIE B. MACKINTOSH.

But why not make real things too? The children can design and weave mats to be used beneath hot dishes on the dinner table, just as easily. In a table mat the ornament should be confined to the border and the corners. The dish occupies the center. The colors should be unobtrusive.

DOLL HAMMOCKS. Six good designs for doll hammocks are shown in Plate VII. These will be needed for Christmas presents. They are given this month because it will be well to begin the weaving early "to avoid the rush." We are indebted to Miss M. Emma Roberts, Supervisor of Drawing, Minneapolis, for these examples of the work of primary children under her direction.

Grammar

HARVESTING, in the widest possible sense, with all the appliances involved, offers no end of suggestions for interesting and profitable work of every sort for the month of November. In addition, the whole history of Thanksgiving is involved, from the inception of the "Great Adventure" on the part of the Pilgrims in Old England to their first Thanksgiving in New England.

HARVESTING MACHINERY. In the early grammar grades the implements and machinery with which the pupils are familiar should be studied. They may be sketched in use in the fields, or more in detail to show form. They may be reproduced in miniature models. They may be described in words

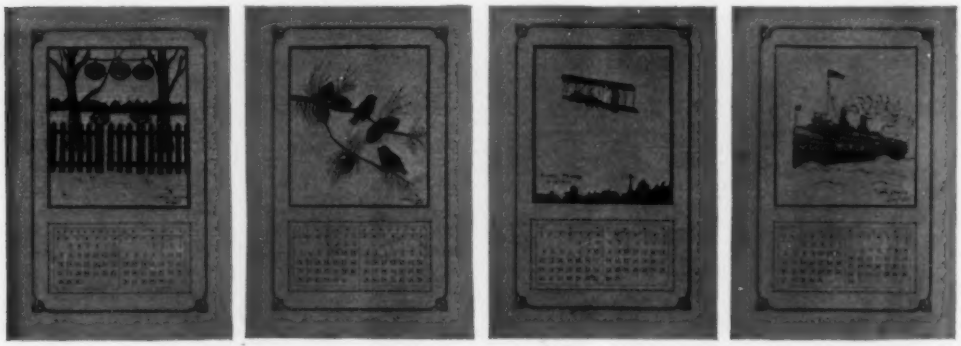


PLATE XVI A. Four leaves from a calendar from Zanesville, O.

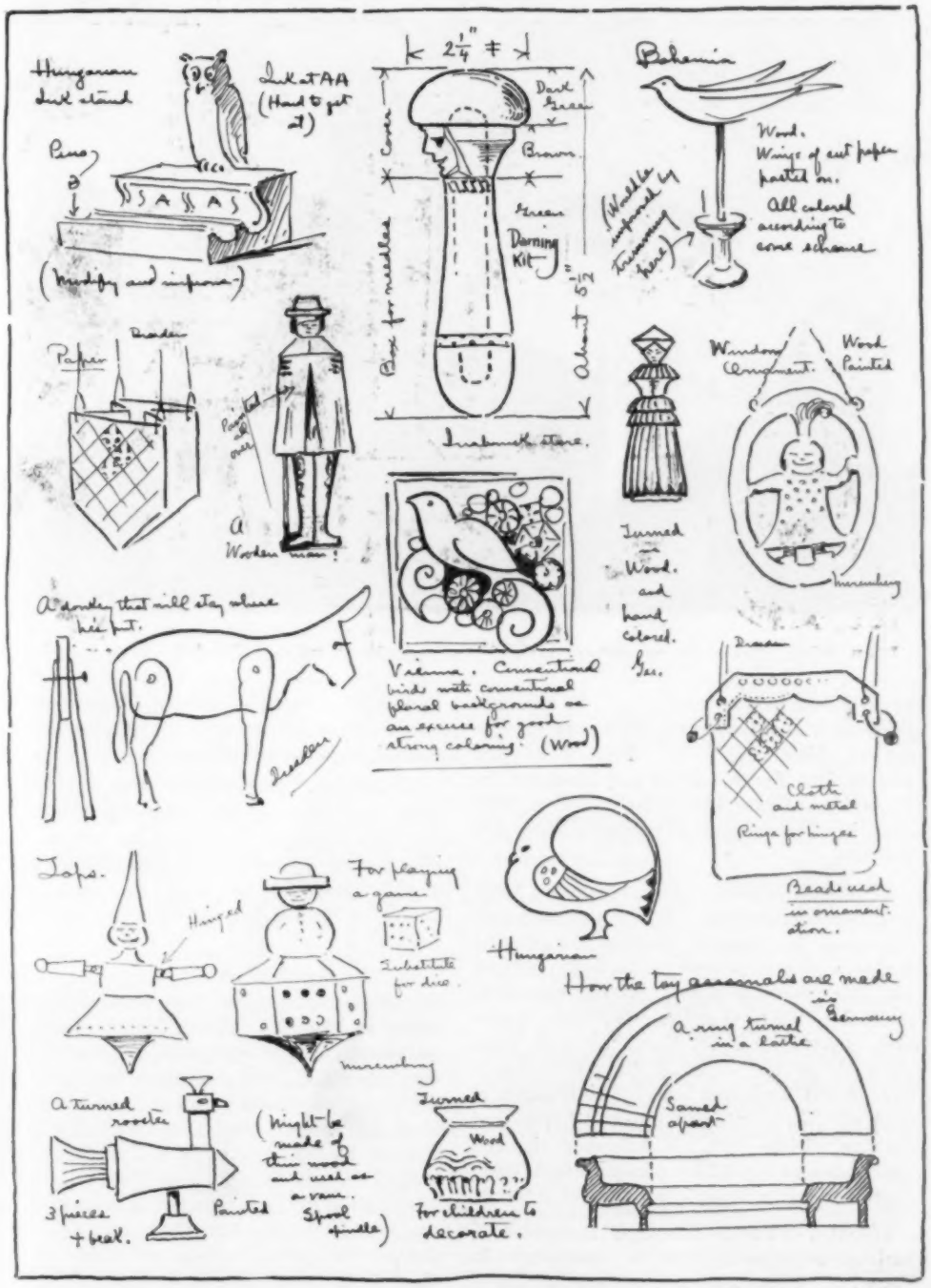


PLATE XVII. Sketches clipped from the notebook Henry Turner Bailey used when visiting the Dresden Congress, 1912.

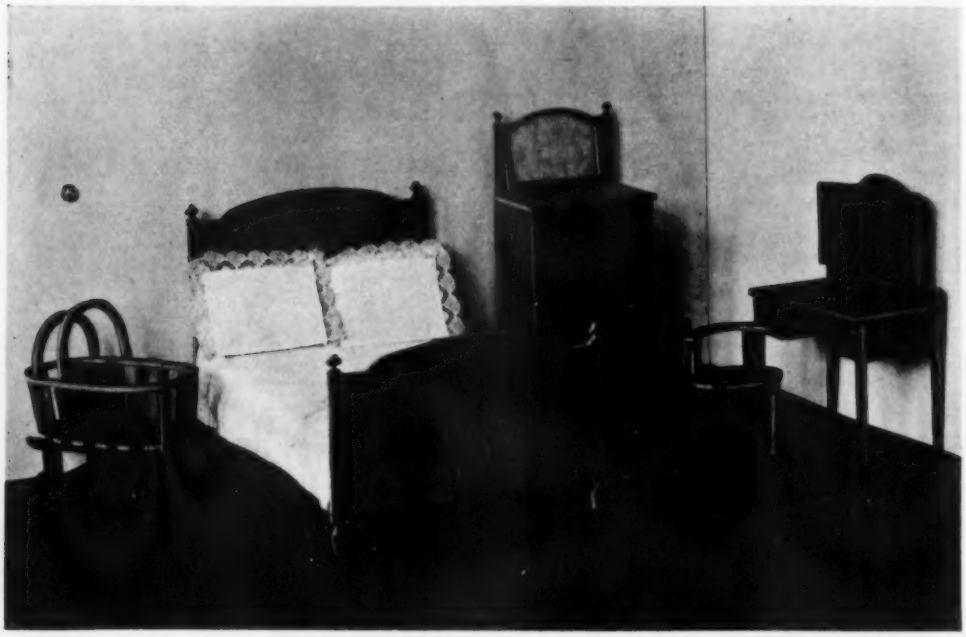


PLATE XVIII. Five of the ten pieces of furniture described by Miss Kneeland. They look like the real thing.

with illustrations in the text. In the late grammar grades harvesting machinery may be studied historically. The History of the Reaper, Hay Forks Ancient and Modern, The Threshing of Grain, Cotton from Field to Mill, are a few of the many good topics for November booklets.

FOOD STORAGE. This is another topic of fascinating interest. It has two principal divisions: 1, Nature's devices for storing foods for plants (in seed packs, bulbs, tubers, etc.); the devices of insects (spiders, ants, bees, etc.); the devices of animals (squirrels, muskrats, beavers, etc.). 2, Human devices, from the cache of the savage to the silo and cold storage of the modern man. The illustration of all this history will give new zest to pictorial drawing. Plate VIII, a landscape in cut paper, shows a typical scene in the middle west, a grain elevator being the center of interest.

FOOD STUFFS. This topic is capable of various treatments. One is illustrated in Plate IX. This shows carefully studied drawings by grammar school children from grades IV to VIII. In each case the medium has been selected with reference to its possibilities in rendering the object effectively.

PILGRIM BOOKLETS. The covers of three such booklets are shown in Plate X. The first is appropriate for a history of the Pilgrims; the second for a history of the settlement of Plymouth; the third for an account of important historical events that have fallen in November.

THANKSGIVING THINGS. Some of the best of these that have come to the office are shown in Plate XI. These include postcard invitations, letters, programs, menus, a souvenir bookmark, and a souvenir card bearing a Thanksgiving poem enclosed in an envelope. Plate XII gives a design for the cover of a Harvest Festival, given by the pupils of the Ethical Culture School, New York, last fall. The original by L. S. was an ink drawing. It was reproduced by the "line-plate process" and printed by the pupils on the school press. Plate XIII shows place cards that will stand. These are made from rather stiff paper. The

design is brought out in silhouette by cutting. The inside of the sheet is painted a brilliant color, orange, red, or green, while the outside is tinted delicately to harmonize with it. The glow of the rich color through the openings in the design gives a charming effect. Plate XIV shows a design by Florence Pretz Smalley, that may be used for a postcard invitation or for a place card.[3]

CALENDARS. In no line of "applied art" has there been a more marked improvement recently than in School Calendars. Plates XV XVI and XVIA show pages from some of the best of those produced last year by grammar and high school pupils. All of these were published. That is, having been designed and drawn by school children, plates were made, and from them an edition of the calendar was issued for sale or for free distribution to the patrons of the school.[4] The School Calendar is an ideal problem in design. A perfectly definite *idea* to be embodied is to be found in every month, every season, every year. The making of a calendar such as those exhibited involves pictorial drawing, lettering, decorative design, coloring, some knowledge of photo-engraving, type composition, printing papers and inks, presswork, and much else besides. By starting early in November such calendars as these can be completed in ample time for distribution at Christmas.

TOYS. Teachers and others interested in art and craft are quite as progressive now in European schools as any to be found in the United States. Plate XVII gives a hint of what they are doing. These rough sketches were clipped from the notebook Mr. Bailey had with him when visiting the Dresden Congress. They have the merit of revealing a method of making rapid notes on the spot. Notice that they consist of either a diagrammatic or a perspective sketch, as the particular object appeared to demand, with such written

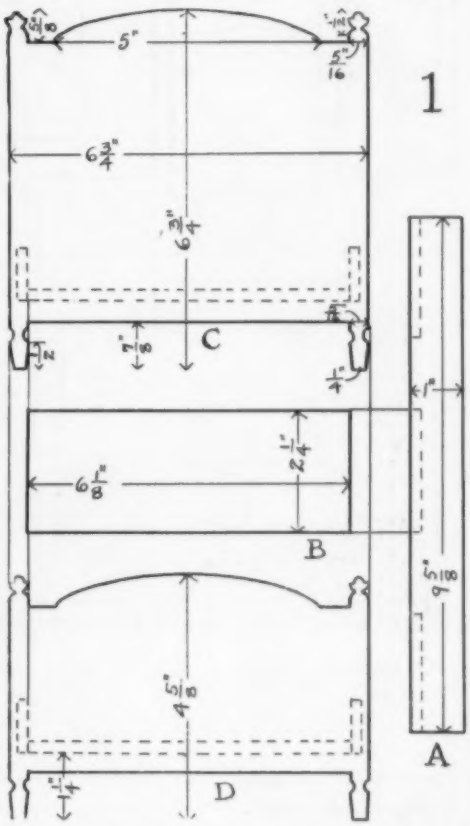


PLATE XIX. 1. BED. Four pieces: A side boards (Cut 2), B slats (Cut 3), C head board. To A nail B, then nail on C and D.

data as seemed necessary to make clear the facts worth remembering. They are all suggestive of work that might be done in our schools.

TOY FURNITURE. We have had enough flimsy, ugly, wrong-proportioned toy furniture. Through the generous co-operation of Miss Hyde of Pratt Institute, something better, something fine, begins to appear herewith, by Miss Eleanor Kneeland:

[3] These designs by Mrs. Smalley may be had in quantity, ready for coloring, both sizes, from the School Arts Publishing Co., 120 Boylston St., Boston, Mass.

[4] One thousand copies of the school calendar, issued by the pupils of the grammar schools, under the instruction of Miss Rena Frankeberger, who is in charge of the drawing in the public schools of this city, have been sold, principally to people in Williamsport, although copies have been sent to Iowa, Illinois, New Jersey, Alabama, Washington, Oregon, Delaware, Maryland, Ohio, Colorado, Indiana, Kentucky, Virginia, California, Michigan, Florida, New York, Connecticut, Vermont, Maine, Rhode Island, Massachusetts, Nova Scotia, and District of Columbia. *From a local newspaper.*

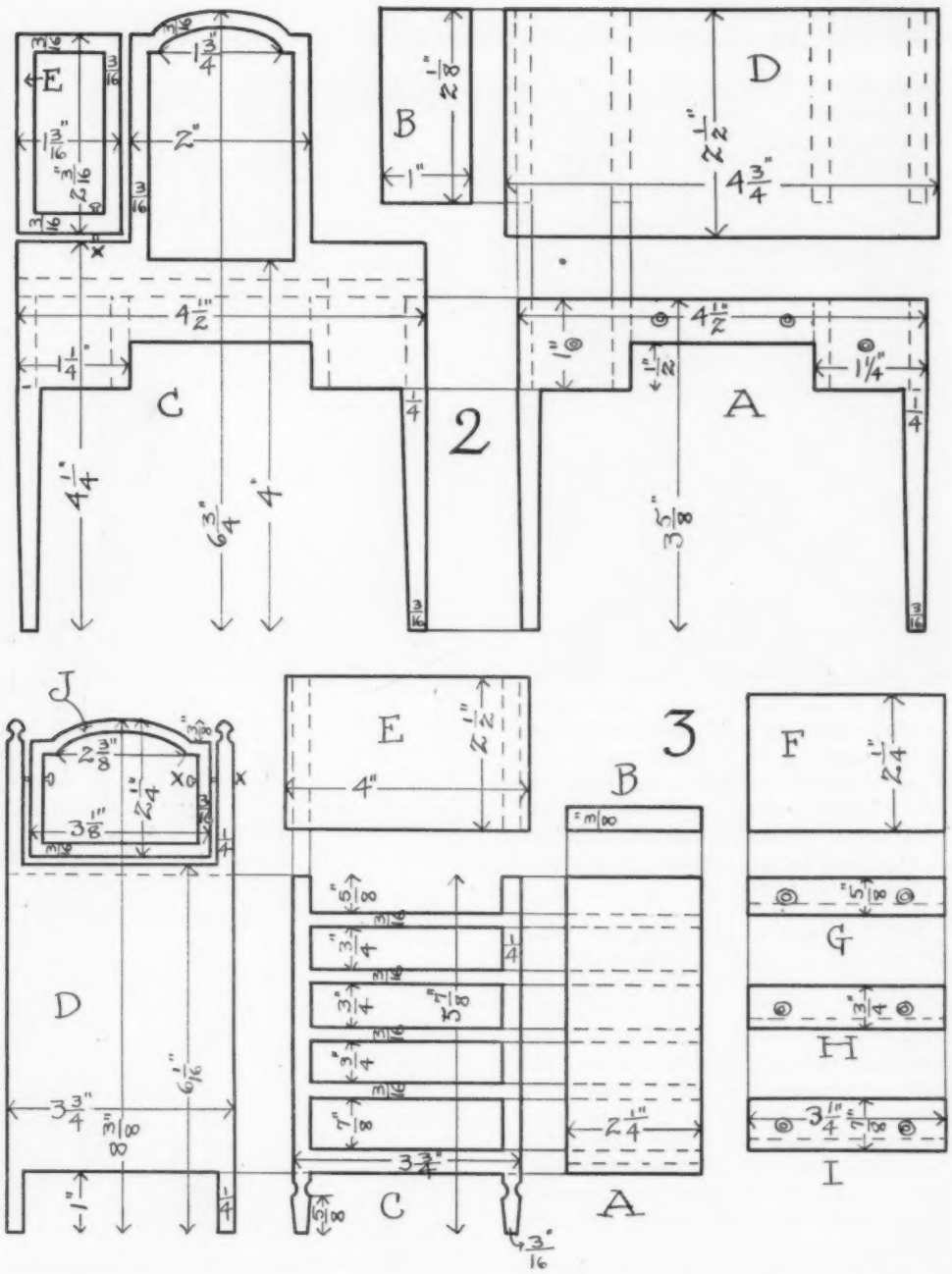


PLATE XX. 2. DRESSING TABLE. Five pieces. A front, B sides and cross pieces (Cut 4), C back, D Top, E swinging mirror frame (Cut 2). To A nail B. Then nail on in order C, D, and fasten E in place at X. 3. CHIFFONIER. Ten pieces. A sides (Cut 2), B supports for drawers (Cut 10), C front, D back, E top, F bottom of drawer (Cut 5), G front of top drawer, H front of middle drawer (Cut 3), I front of bottom drawer, J mirror frame. To A nail and glue B. Then to A nail in order C, D, E . To F nail and glue G, H, and I. Fasten between posts at X.

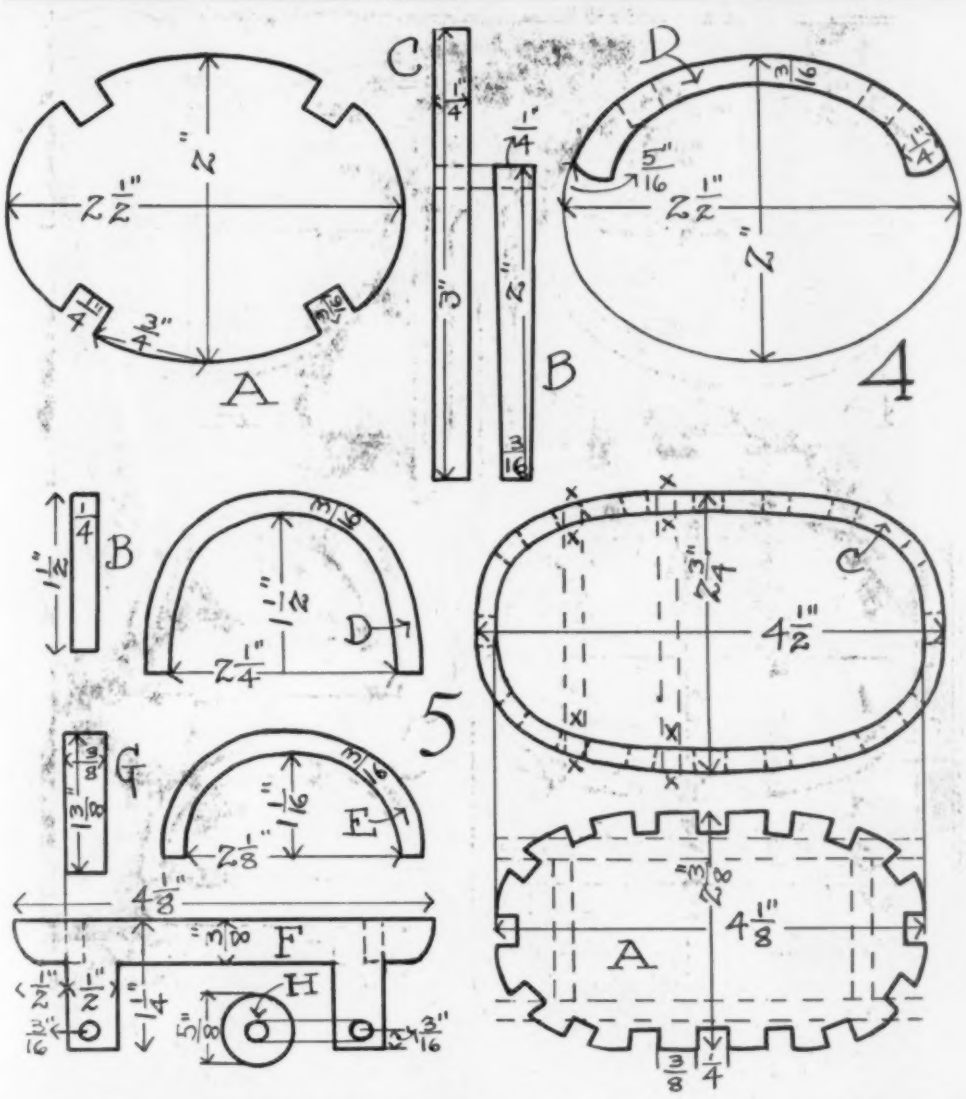


PLATE XXI. 4. STOOL FOR DRESSING TABLE. Four pieces. A seat, B front legs (Cut 2), C back legs and posts (Cut 2), D back. To A nail and glue in order B and C at indentations. Then nail D to top of C. 5. BASSINETTE. Eight pieces and towel rod. A bottom, B slats (forming sides) (Cut 16), C rim, D and E hood, F frame (Cut 2), G cross pieces to frame (Cut 2), H wheels (Cut 4). Two pieces 3-16″ towel rod 2¼″ each. To A nail and glue B at indentations bending outward at slight angle. To C nail D and E at X. Nail C to top of B. Nail F and G together, then nail on body (A). Run towel rod through holes in F and glue H to ends of rod.

TOY FURNITURE MADE OF WOOD

Bedroom Set of Ten Pieces

The models photographed for Plate XVIII were made of three-ply wood, cut with a coping saw, No. 170, and put together with glue and ½″ brads, No. 20. Small screw eyes were used for drawer handles on the chiffonier, desk, and dressing table; screw eyes with rings (such as are used to fasten cord to shade sticks) on bureau drawers. Silver paper was used for the mirrors.

The figured dingrams allow for wood 3-16″ thick. Models made according to measurements will be at a scale of 1½″ = 1′0″. Heavy lines are for cutting, light

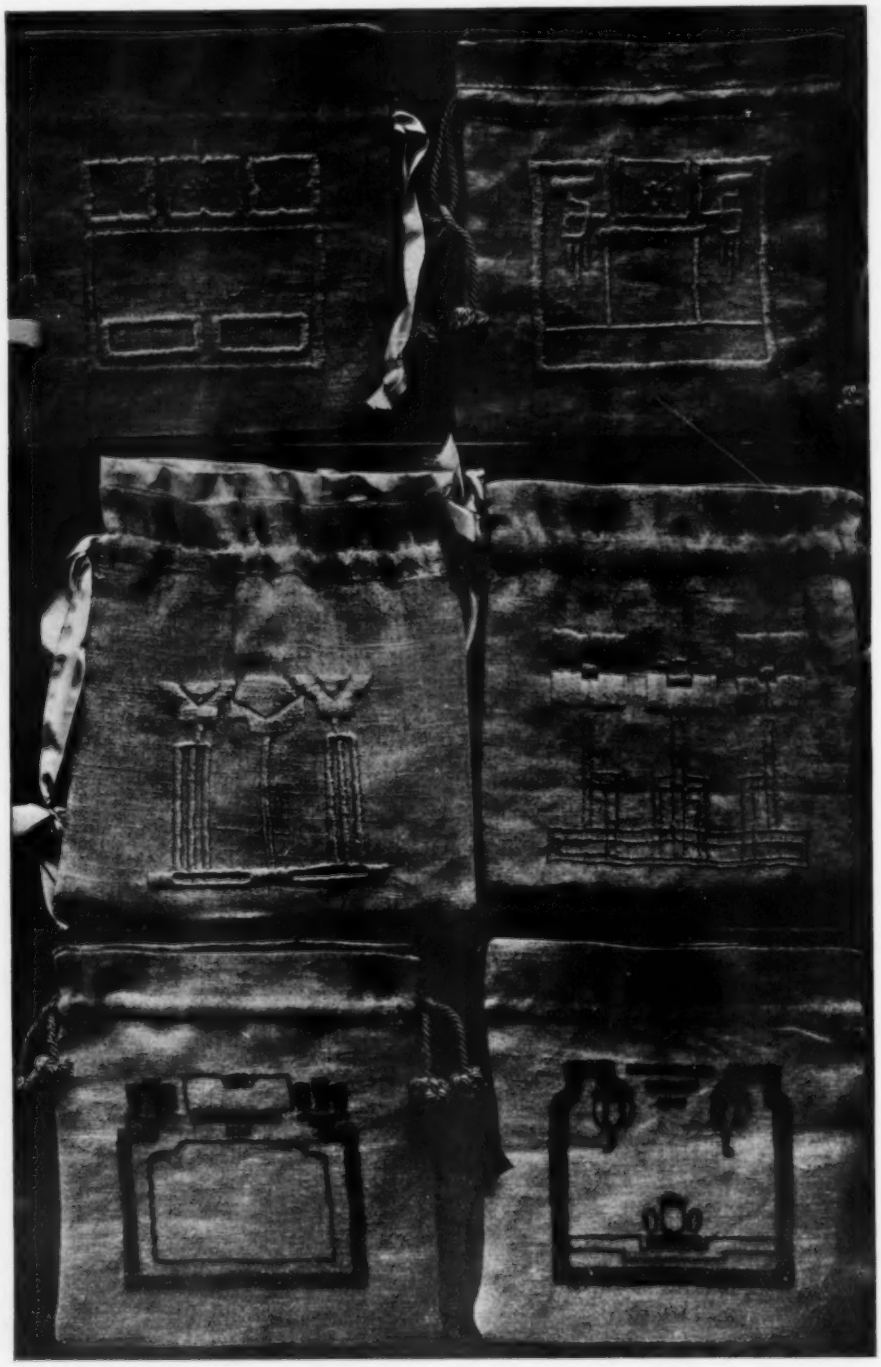


PLATE XXII. Some of the beautiful opera bags made by grammar grade children, Springfield, Mass.

lines for construction and dimension lines, dotted lines for guides in assembling.

Cut the patterns first out of Bristol or Patent Office board, lay these on the wood and trace around, duplicating where called for in the directions.

In assembling the models start the holes for the brads with a 1" brad awl which has been filed thinner, hold parts to be nailed together in place and pierce both pieces at once. In putting the mirrors in place start the holes from inside the frame, put in the brads (see that the mirror swings freely); then remove the brads, paste silver paper across the face of the frame and when dry carefully replace the brads. If necessary, sandpaper the drawers to make them slide easily.

In making the basinette bore holes for axles before cutting out the pieces (use an auger bit, or drill). The towel rod should fit in the wheels very tight, but turn freely in the frame. Glue a wheel to one end of each rod, slip the rods through the frame and then glue the other wheels. The hood of the basinette should be covered either with cloth or tissue paper. Tissue paper also makes a good stuffing for mattress and pillows.

Eleanor Kneeland.

HAND BAGS. The making of bags for carrying school books, for shopping, etc., is a problem that offers good discipline in design, color, construction, and embroidery. Plate XXII shows some opera bags from Springfield, Mass. Here is a word about them from Mr. Newell, Supervisor of Drawing for the city:

The designs, Plate XXII, were made and traced onto the linen by eighth grade pupils. Fresh tracings were colored with crayons to show the arrangement and placing of the colors in which the design was to be executed. These renderings were sent to the sewing room with the linen. The opera bags were embroidered and made by eighth grade sewing classes. The sewing teachers report that the girls were interested and enthusiastic in executing the designs and that it served to break any monotony or tediousness that arose from the routine of the required work. The linen and floss were furnished by the city but it was required of each girl or group of girls that she should do her own shopping to procure the cord, ribbon and lining of a tone to harmonize with the colors of the embroidery and the linen of the bag.

High School—Freehand

HIGH school pupils pride themselves, sometimes, upon being rather superior to the things ordinary mortals enjoy: the holidays, for example. Days for functions they themselves have planned are far more important! But if Thanksgiving be tabooed, Christmas and New Year's are not—wholly. The work of the month may therefore be related to the approaching holidays.

A SCHOOL CALENDAR. A calendar designed competitively by the students and published by the school has proven to be one of the very best of educational projects. Several such calendars are shown in part in Plates XV, XVI and XVIA.

USEFUL AND BEAUTIFUL OBJECTS. Instead of specifying just what should be essayed, the Editor has decided to print here

PLATE XXIII. Sketches of metal and glass objects seen in Europe, by Miss Chase.

something suggestive, a delightful contribution from Miss Ada M. P. Chase of Pasadena, California.

Are you tired of the old "models," dear handicraft teacher? Are you looking for some new ideas for your work this winter? Then let us glance over the sketches that we made in that delightful time when we "traveled abroad"; and, forgetting that there was such a thing as "education," drank in beauty at every turn, and knowledge with each passing hour! How these few scratches of the pencil remind us of that magic time, and transport us to the quaint galleries of Cluny, or the mediaeval beauties of southern Germany!

It is from Ulm, with its quaint spires and red-tiled gables, that our first sketch, Plate XXIII, has come. How dainty the weather-vanes are, which top each roof, and swing in the evening breezes! Such a vane as the

one shown offers a good field for original design, and can be worked out either in wood or metal.

The graceful bit of Venetian glass presents a good suggestion for the pottery class, but could also be worked out in copper. It would make a fine holder for a glass of jelly, which could thus be kept upon the dining table and preserved from dust under the pretty domed cover. If one wished, he could make in the lid an opening for the spoon, such as is planned in a mustard pot, and a hand portion; but if the clasp were developed from the flat, the button could be cut with the left hand part, then turned back to form a hook, fastening as in the sketch. This sketch suggests a whole train of fastenings—hooks, buttons, and buckles which can be worked out as jewelry problems.

A technical problem in metal is suggested by the Italian Renaissance dinner knife, which will give us a variation on the time-honored paper-knife. This knife

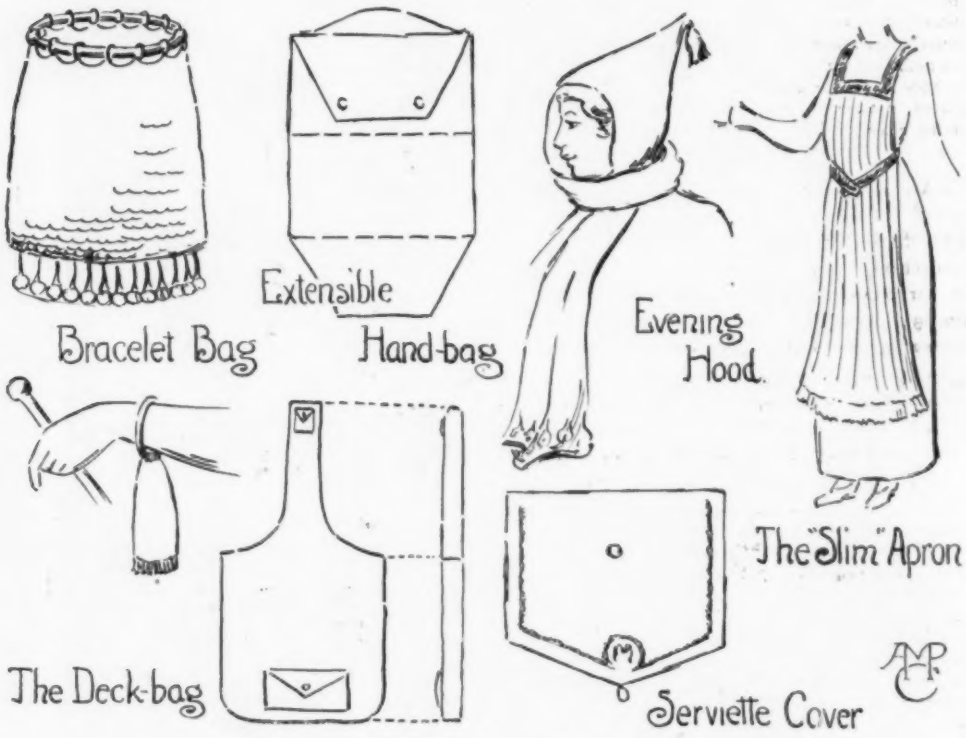


PLATE XXIV. Sketches of textile objects seen in Europe, by Miss Chase.

silver spoon could be made to complete the outfit. The methods of decoration, are, of course, manifold.

The night-lamp is of French Fayence, the original being in the Musée de Cluny. It presents a good problem in either pottery or metal, and must be planned to hold a good-sized candle. The arrangement of the draught-holes in the roof and the decoration of the sides, offer opportunity for applied design. A landscape composition decorated the original of this sketch.

A charming clasp for an evening wrap is the jewelry problem suggested by the next sketch. The fine original was a piece of sixteenth-century Spanish work, cast in silver; but it could be easily worked out in sheet-metal, the decorations being repoussé or enamel. In this case, the clasp was fastened by having the small head (which formed a button) thrust through the ring on the right is made in one piece, the heavy metal of the handle being hammered down to make the thin blade. The handle of this knife was engraved and then plated with gold.

The little "mush and milk" set is of Roman glass, from the museum at Mainz. Its charming bowl is of especial interest for its graceful silhouette. The development of this model in pottery would be a problem of interest, and would admit of infinite variation both in construction and decoration.

In the next group of sketches, Plate XXIV, we shall find some ideas for the textile workers. The evening hood, the serviette cover, and the apron, all of which are from Paris, are primarily for them.

The coquettish evening hood should be made from a strip of silk or wool material, fifteen inches wide, and three yards long, folded in half, and seamed fifteen inches

from the fold along one edge. The lining should be of something rather heavy, so that the point will stand up nicely from the head. The ends may be stencilled, block-printed, embroidered, or gathered into tassels.

The French "serviette" or napkin cover takes the place of the customary napkin-ring, and is a good model for elementary hand-sewing and embroidery. It should be the length of the napkin when folded, and fastens over with button and loop. It can be decorated in a variety of ways—the initials or monograms of the owners; their favorite flowers or colors; the zodiacal signs of their birth-months; or, if made for the domestic science dining-room, the school monogram in school colors.

The "slim" apron is a charmingly dainty and unique affair for afternoon tea or chafing-dish service. It is simply a long straight piece of lawn, box-plaited into a band of insertion which crosses at the back and buttons in front a little below the waist. An embroidery or lace ruffle to match finishes the bottom.

The new "bracelet-bag" from London is a good model for crochet, and a most useful article; easy to find your money when it is open, and impossible to lose it when it is shut. Glass bracelets of various colors can be obtained at any store which handles Oriental goods, and loops can take the place of the rings on which the bag slides.

From an up-to-date English Crafts show comes the deck-bag—a most useful article for one going abroad, but equally serviceable to the lady with the large shopping-list. It should be made of sheepskin, the edges bound with narrow strips of the leather. It admits of cut or stencilled decoration on the front side (which is not shown). The side represented in the sketch is carried against the body of the owner—the small purse is for money, the lower one for glasses and handkerchief. The bag is open at the top, and must be large enough to hold a novel and embroidery or knitting; about fourteen by twenty-four inches will do. The bag is made of two flat pieces, cut the shape of the pattern, and a third strip, two and one-half inches wide, which forms the sides and bottom of the bag.

Another good leather model is the "extensible" bag, which could be developed in sheep-skin or in calf; in the latter case it could have a tooled decoration. It might appropriately be called the "big-n'little" bag, for it can appear as an ordinary street bag, or at a moment's notice, be extended into a most accommodating shopping-bag. There must be two sets of snappers on the opposite side from that we have shown, and you can easily figure out just where they must go.

The adaptation of old ideas to new uses calls for the exercise of an ingenuity which is of practical value to the student. When we add to this the training of eye and hand that comes in the constructive design of one of the models we have suggested; the development of taste involved in designing appropriate decoration for the article; the technical practice involved in its production, and the honest pride engendered in the artist by the finished product, we realize that such an exercise is of high value to the student. It results in a tangible product which he should value always as an expression his highest endeavors at that period of his artistic development.

High School—Mechanical

TRANSLATING from the object into the working drawing needs to be supplemented with translating from the working drawing into the object. When the object cannot be made full size it is well sometimes to construct it to a reduced scale. The Bungalow plans commenced last month can be made to yield a rich harvest in intellectual and manual skill if put into actual material. A "working model" of the Bungalow would prove to be something worth while from the student's point of view. How such a model may be produced may be gathered from the following description of an actual experience.

A MINIATURE HOUSE. This was planned and built by pupils under the direction of Mr. Karl T. Brown, of Jamestown, N. Y. Here follows Mr. Brown's account, with pupils' drawings and two photographs from the model:

The house, to begin with, was not built according to a plan previously made but was planned during its construction. This will explain the reason for some of the irregularities of the plans. Plate XXV. The over all dimensions are: length 18 inches, breadth 13 inches and height to top of gable 14 inches. The scale used is one-half inch to the foot. Common pasteboard of varying thickness is used for material. The cellar wall is made by pasting pasteboard to studs and giving a thick appearance around the cellar windows. The clapboards are thin on one edge, the same as real clapboards and are glued to the framework. Glue is used in the entire construction.

The second floor, roof and box-railing of veranda are shingled with small pieces of paper put on separately to represent shingles. The roof is made of single sheets of heavy cardboard placed together, with the shingles pasted on them.

The veranda posts are made of pasteboard rolled into shape with a base and cap effect. The windows, which slide up and down are of mica. Ordinary house paint is used to paint the first floor and upper trimmings. The body is painted yellow, trimmed with white and the veranda floor is painted gray. The shingles are stained green.

The house has seven rooms, including a bathroom. The interior, the same as the exterior is worked out in detail. All the doors swing on hinges made of pasteboard and pins. The doors and windows are cased and each room has base boards except the bathroom which is wainscoted and painted white. The woodwork is finished a light oak and the rooms papered.

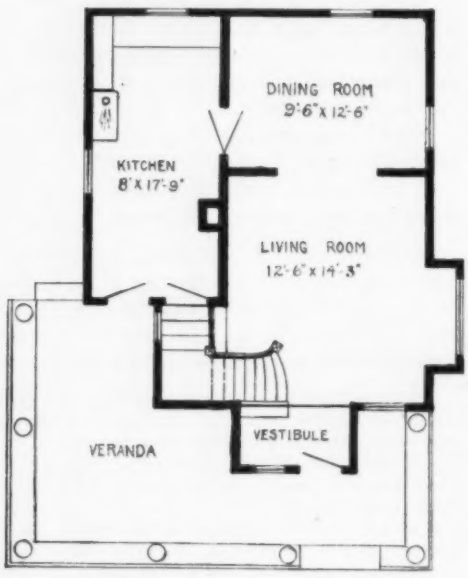
The most interesting objects of the living room are the winding stairs with railing, and the bay window. The vestibule is partly separated from the living room by a grill and a panelled partition which forms part of the stairs. There is a double door between the living room

and dining room. This room has two ordinary windows and a swing door that leads to the kitchen. A plate rail extends around the room. The kitchen is long and at one end cupboards and a broad shelf are built in. The cupboards have doors which swing on tiny hinges. Under the shelf are drawers and a flour bin. At the other end are two doors, one that leads to the cellar and one out of doors. The chimney is built on the side wall and leads to the top of the roof.

There are three bedrooms upstairs, all opening into the hall. Two have clothes presses and each room is lighted by two windows. The stairway is again interesting in the hall, with its posts, railing and spindles. The stairway continues to the attic through a door which opens into the hall. The window seat with its windows is also of interest. The bathroom is furnished with all necessary equipment.

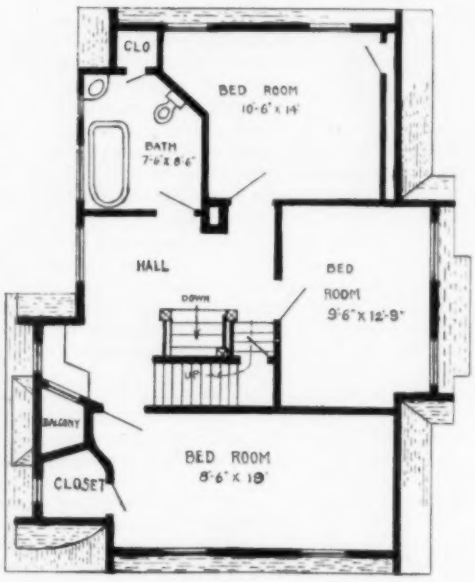
The house can be taken apart in two sections, the first floor, and the second floor together with attic. The attic floor and roof come off so one can see the second floor and attic space.

This description gives only an inadequate idea which would be better realized if the house itself could be seen.



FIRST FLOOR PLAN OF MINIATURE HOUSE

SCALE $\frac{3}{32}$ INCH = 1 FOOT



SECOND FLOOR PLAN OF MINIATURE HOUSE

PLATE XXV. Plans of a miniature house, by high school boys.

A FULL-SIZE OBJECT. Something of use in the home should be produced between the first of November and Christmas. What it should be depends on the individual pupil and the time at his disposal. Plates XXVII and XXVIII show excellent work by students under the direction of Gustaf Larsson of Boston, and William Noyes of New York.

Vocational and Technical

A PROBLEM IN SQUARE KNOTS. Often there is a child in the school whose hands seem more or less useless. The muscles are not strong enough to execute the orders given to them by the brain. A good exercise for the child is the problem in square knots, which requires the use of both hands, and results in a piece of exact work, the raffia work bag.

To start Fig. 6, Plate XXX, tie a knotted thread of raffia, Fig. 2, Plate XXIX, around two rungs of a chair back. Fasten five knotted threads to the loop thus made, with a slip knot, Fig. 3. Remove the thread from the chair and knot the two ends so as to make a tiny circle with six pairs of threads suspended from it. Six pairs of threads will give a base with six diamonds, Fig. 5. Seven,

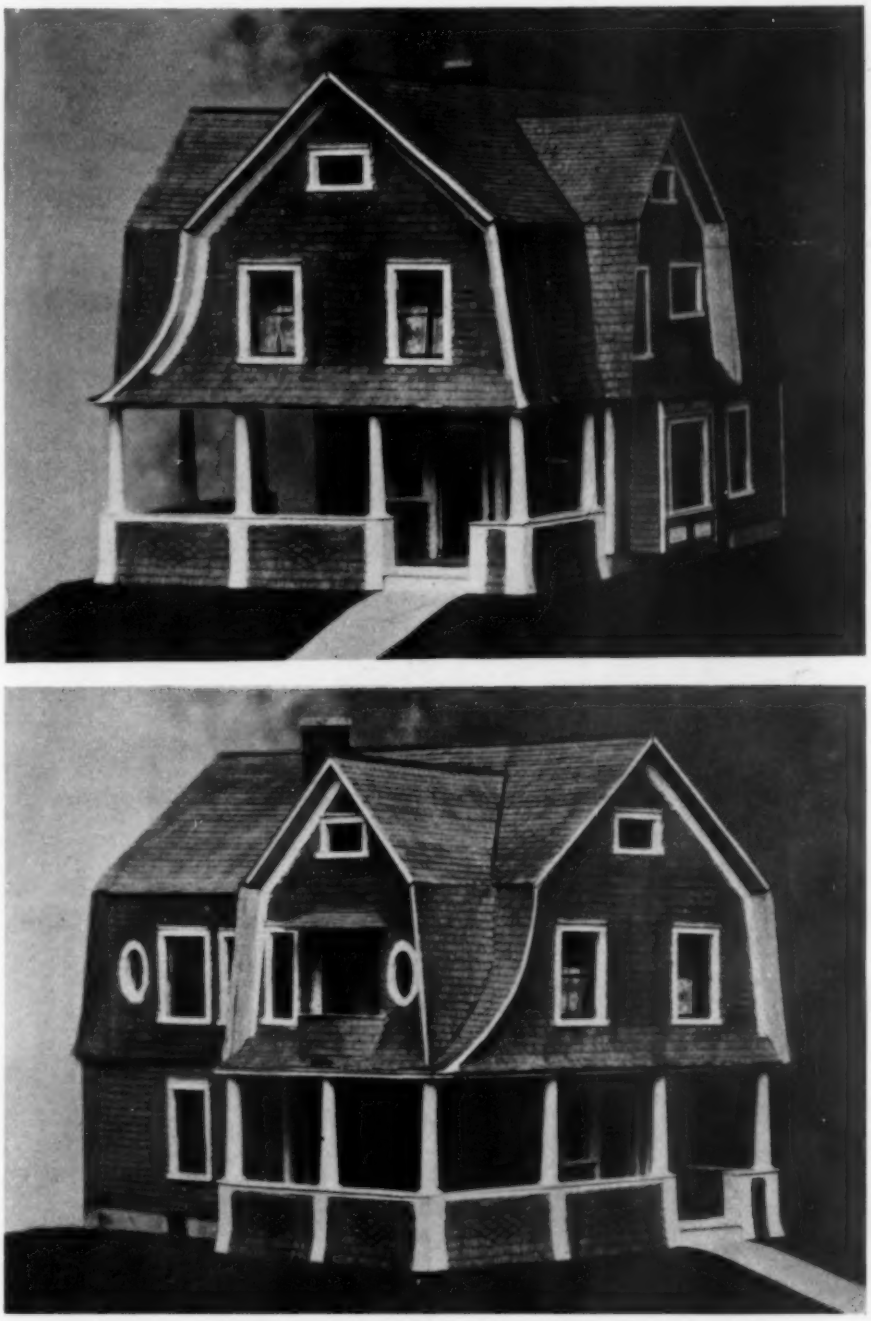


PLATE XXVI. Two views of a miniature house made by high school boys, under the direction of Karl T. Brown, Jamestown, N. Y.

PLATE XXVII. Some first-class furniture made by pupils under the direction of Gustaf Larsson, Boston, Mass.

PLATE XXVIII. Examples of fine handicraft by pupils under the direction of William Noyes of New York.

eight, or nine threads may be used according to the size of the base required.

On a stout paper, draw a three-inch circle with six radii, for a small bag. Fasten the paper to a drawing board with thumb tacks. This gives a good foundation to which to pin the work, and an exact pattern to follow.

Pin the raffia circle in the center of the pattern. Lay two threads on each radii of the circle. Open two of the threads, pin a knotted thread on the line between the two threads, Fig. 1. Bring the two threads together and

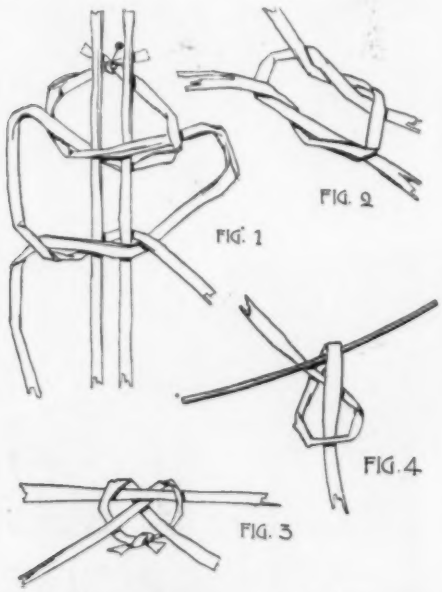


PLATE XXIX. How to tie some raffia knots. 1. A square knot around two threads. 2. A square knot. 3. A slip knot. 4. Another style of slip knot.

tie a square knot around them. Push the knot up close to the circle in the center with the thumb nail or a blunt pair of scissors. Pin it securely. After this manner tie seven knotted threads to each of the six pairs of threads.

Discard the seventh thread on each radius of the circle. Tie the sixth thread around the middle ten in a square knot. This will give the upper half of a diamond. Complete the lower half of each diamond on the left side by holding the sixth thread on the left in the left hand, under the seventh thread which is grasped firmly in the right hand. Tie in a common knot, pulling the seventh thread taut. Tie the five middle threads that come next in the same way. Again separate the two threads that come from the ring in the middle of the base. Hold the right thread parallel to the seventh thread and tie in the same way to the threads suspended from the seventh thread, Fig. 5.

The right hand seventh thread, and the left middle thread is tied to the right lower half of the diamond as in the left half, except that the seventh thread and the middle thread are held in the left hand over the sixth and five middle threads, which are held, each in its order, in the right hand. Tie the four threads at the bottom of the diamond in a square knot.

If one wishes to make a large shopping bag, she can use seven, eight, or nine diamonds for the first row, and introduce a second, or a third row of diamonds.

Pin the circle of rattan that has been covered with raffia, over the threads that extend from the star so that it clears the points of the star by a fourth inch. Tie each thread to the ring using the form of slip knot shown in Fig. 4.

The side of the raffia bag is made of square knots. Leave the work flat on the board until half of the side is completed, five rows for a large or small bag. The small bag should not be more than eight rows of knots high, the large, nine rows of knots and an inch-and-a-half band of open work.

The bands and the loops through which the drawing string is passed are but a succession of square knots.

The bags may be made of natural raffia, colored raffia, or macramé cord. The natural colored raffia bags are particularly pleasing lined with poppy red, pink, pale blue, lavender, or sage green. Perhaps a pink satin lining is the most effective of all, although silk is pretty.

The lining should extend at least an inch above the loops. It is best to make the lining in the form of a separate bag, the bottom stiffened slightly with cardboard, and the top drawn up with elastic or ribbon. Fasten the lining in three or four places to the reed in the bottom of the raffia bag.

The raffia work bag or shopping bag is so attractive, it wears so well, and it is so useful, that a child never regrets the work that he puts into it.

CORDELIA J. STANWOOD
Ellsworth, Maine

COSTUME ILLUSTRATION. IV. POSE DRAWING.[5] It is clearly evident that fashion illustrators are realizing the value of well drawn, life-like figures, for in first class studios models are employed for the use of the layout figure artist. In cheap quick work the poses are mechanically traced. Good figure drawing can be achieved only through working from life, and, in the schoolroom, this is made possible by the posing of the students themselves and the application of anatomical study.

Costume illustration students have not had pose drawing, so in order to give them an idea

[5] This is the fourth installment of a series of lessons by Miss Florence A. Newcomb, of the Washington Irving High School, New York City,—"the school where they have too good a time!" The first installment appeared in the May number, the second in the June number, the third in the September number.

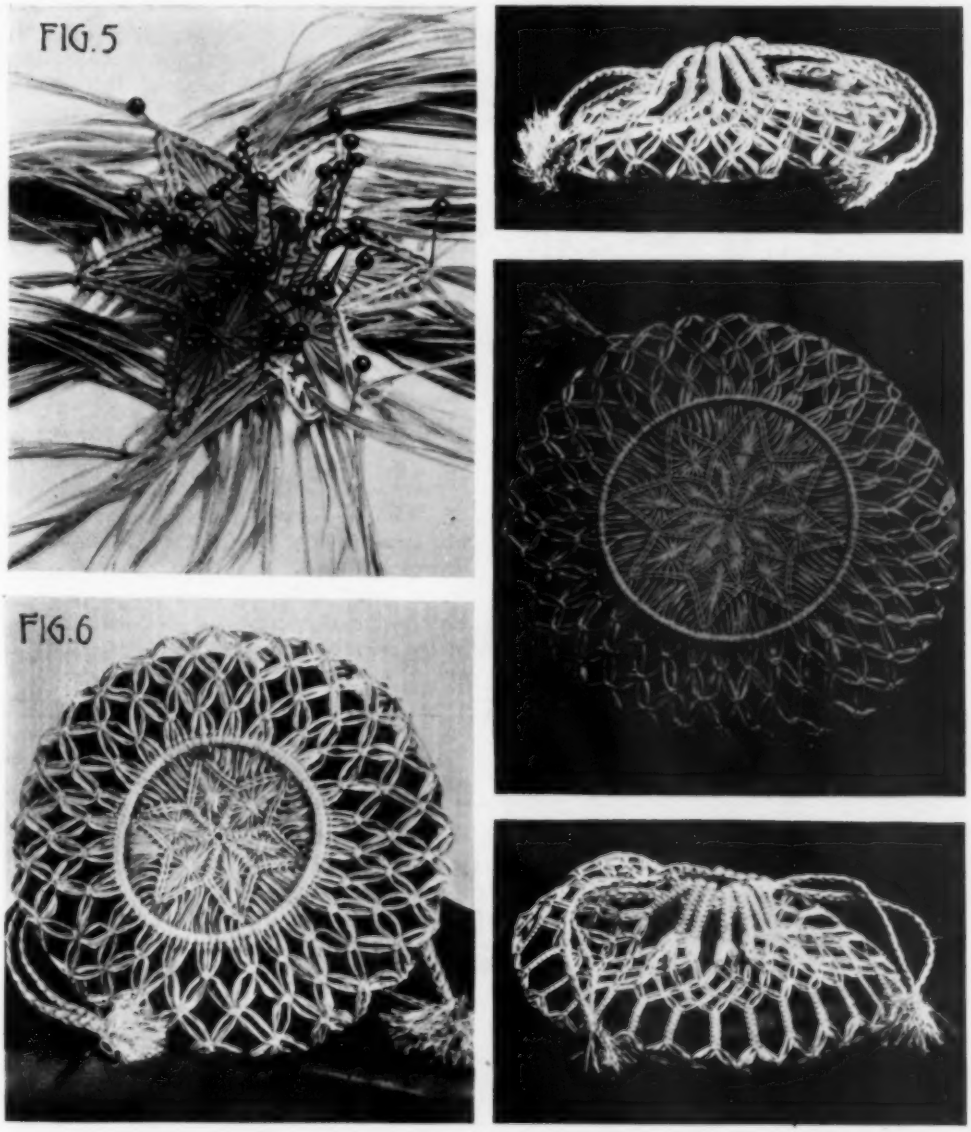


PLATE XXX. Raffia bags in process and completed. By Cordelia J. Stanwood.

of the nature of sketching it is necessary to start at the beginning.

Illustrative Material: For this purpose the teacher should refer to her miscellaneous collection of reproductions, gleaned from all sources, selecting studies ranging from Michael Angelo and Raphael to Whistler and Phil May, in order to illustrate points in technic, action, rhythm, character study or structure analysis. By thus relating these exercises with the work of master artists, appreciation is awakened. The pupils see how great men studied and they

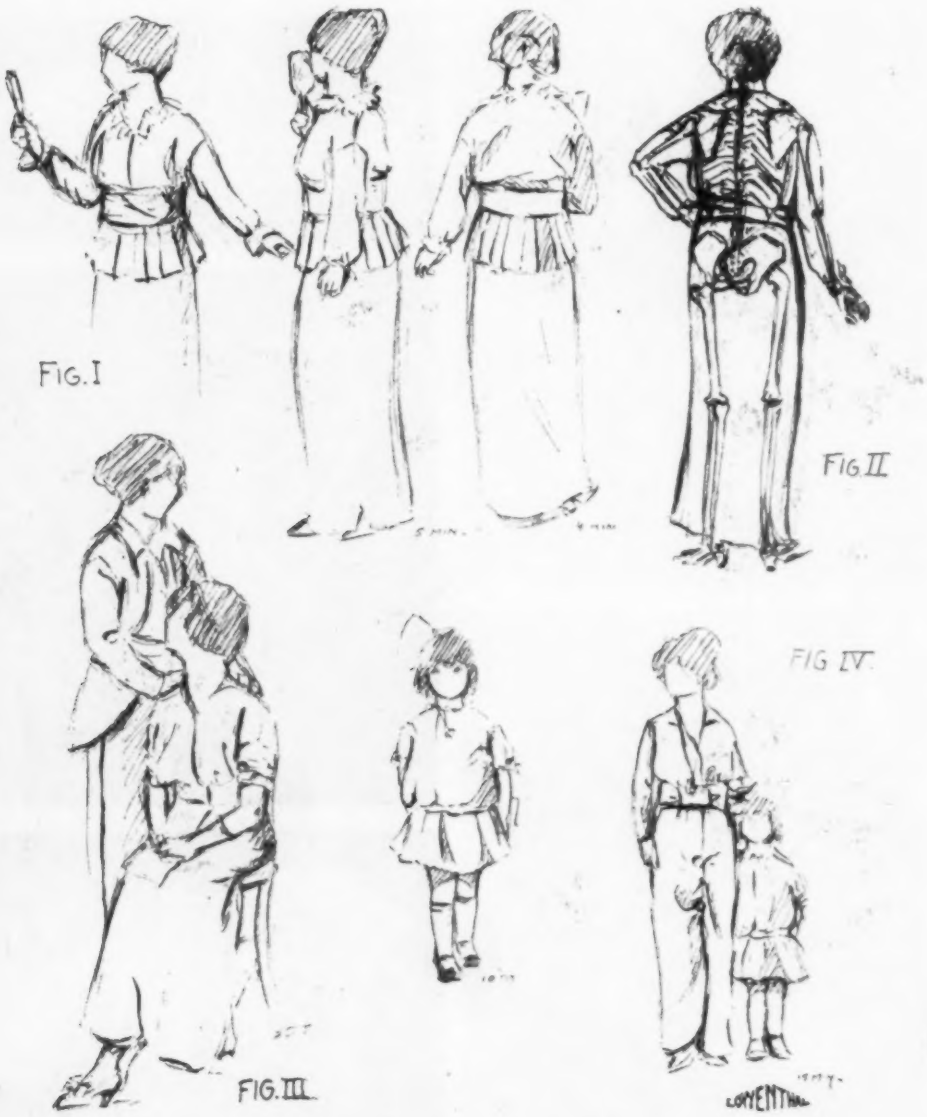


PLATE XXXI. Sketches in pencil made by a pupil of Florence A. Newcomb in her costume design class.

also acquire an insight into the charm of expression in line.

Time. In a course of fifteen hours a week an average of about three hours should be devoted to pose sketching.

The Model. Pupils should pose in turn, and occasionally there should be a child or other visiting model.

Poses. With amateur models the duration of the pose cannot be more than twenty minutes. The first pose should be simple in mass and action. Girls in gymnasium suits are

good for the study of action and structure. Later the postures may be suggested by the class, always keeping in mind grace and rhythm, with the purpose of using the sketches in fashion illustration plates, which work is coincident with the pose drawing. For instance, when the fashion problem is to illustrate a figure in a suit the sketching lesson should correspond and the pose be used in the plate; when a figure in a long coat, the sketching lesson should correspond and the pose be used in the plate. If a pose is adapted from reference material, the structure should be tested by a life pose. For the drawing of hands, a model should be used. For this purpose pupils exchange poses; sometimes a mirror may be provided whereby a pupil may sketch her own hand.

Perspective. Notes on perspective should correlate with figure drawing. Knowledge and application of the rules of perspective will aid students in recognizing and drawing with ease the appearance of typical forms under certain conditions and thus leave them free to give more attention to the development of details and character.

The more essential principles are foreshortening, that is, the apparent narrowing of the planes when viewed obliquely, the effect of position on form and size, and those rules governing the appearance of cylindrical forms which aid in the correct drawing of the garments on the figure.

Method: It is well for the instructor to explain first the steps on the blackboard or with crayon on a large piece of oak tag paper tacked to a drawing board.

1. Indicate lightly the placing arrangement.
2. Lightly swing in the most obvious lines of action.
3. Sketch in the oval of the head, then with the head as a unit, mark off and test its relations to the whole figure.
4. Sketch lightly and freely the larger masses, then verify their proportions by comparing, first, the part with the whole, then the parts with each other, always working from the known to the unknown.
5. Verify the action by testing the balance of the figure, that is, by dropping a line from the pit of the neck to the support, then by taking similar levels, horizontal and vertical, comparing the relative positions of the principal parts of the body. Comparison is the clue to it all.
6. Suggest the most apparent characteristics of the model.
7. Indicate the planes by flat masses of shadow, using a free, oblique stroke. The details of features, hair and garments are not to be considered in the early sketches. As the students gain in facility, sketches are gradually developed.

PLATE XXXII. An effective tableau picture well placed. By pupils under the direction of Alvin E. Dodd, Boston, Mass.

Criticism: Place several of the sketches before the class. Encourage the use of common sense before analysis, asking first for general remarks upon their merits, in regard to character, action, construction, etc., then for criticism of weak points with suggestions for improvement.

The following exercises are useful in forming the habit of rapid and orderly observation and of independent drawing of the figure.

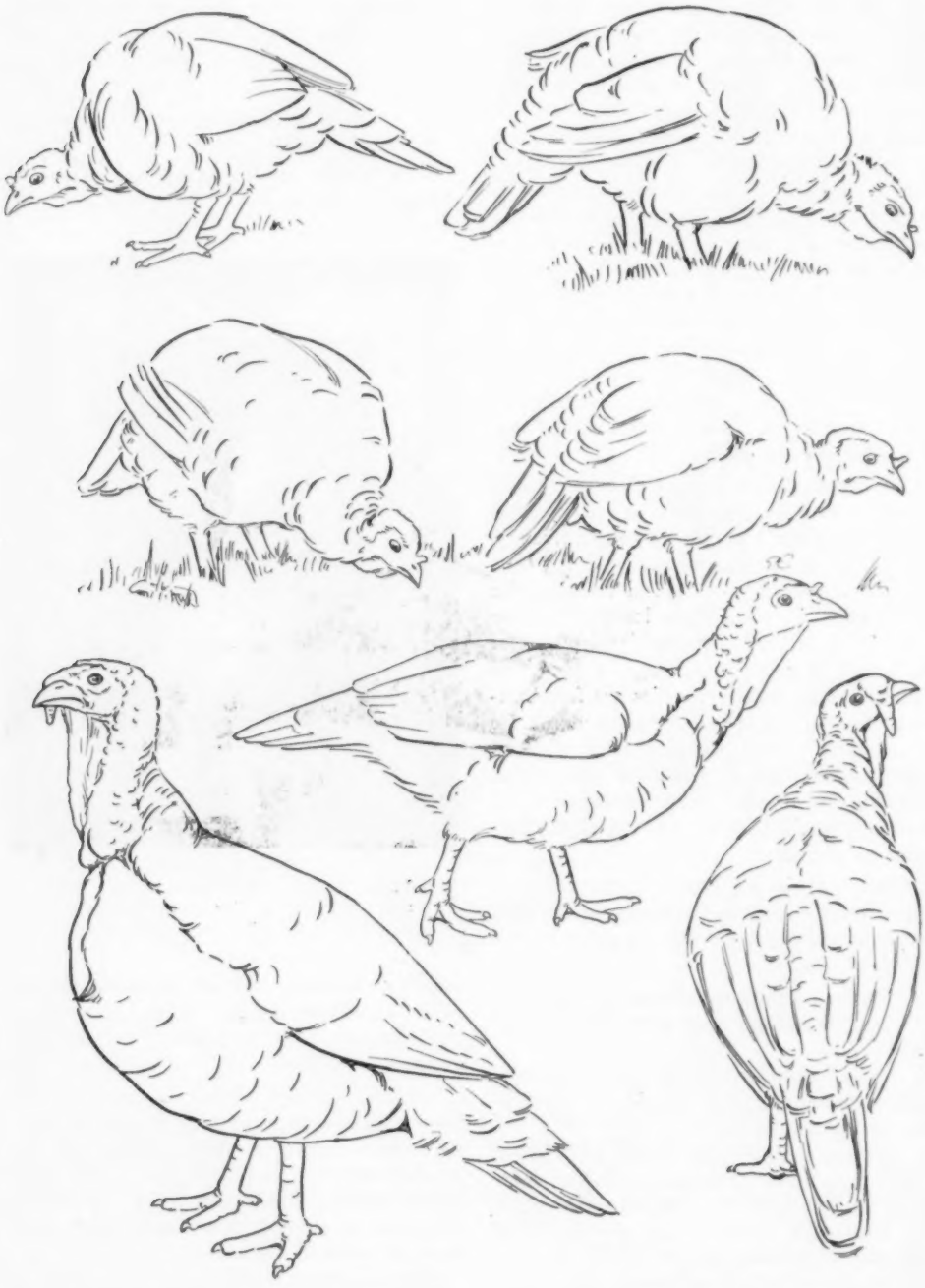


PLATE XXXIII. Some good Thanksgiving Turkeys. Pen drawings by Miss Bess Bruce Cleaveland.

Ex. 1. Select a pose with definite action. Have the model stand five minutes for observation, then while the model rests five minutes, have the class draw from memory and their knowledge of anatomical proportions and "land marks." While resting, have the model draw with other way. Make three turns so that the class may sketch the pose from various points of view.

Ex. 4. Fig. II. Sketch a pose in pencil, then indicate the skeleton with crayon. Here the structure and action must be thoroughly understood.

PLATE XXXIV. The third of a series of decorative designs by Rachel Weston, Fryeburg, Maine, illustrating "Playmates of Other Lands."

the class her feeling of the pose. This will help her to mentally construct the pose. Repeat this four times and then let the class test its drawing during a five minute pose.

If the first steps of sketching have been learned, this way of working will not be difficult; knowing what to look for, observation will be systematic, and the power of visualization will be greatly strengthened.

Ex. 2. Pose the model for fifteen minutes, while the class takes mental notes. Then have class sketch for the same length of time. Correct sketches through class criticism. Ask different girls to take the pose; this will aid in training them to feel the rhythm and action while drawing.

Ex. 3. Fig. 1. Pose the model for fifteen minutes at a time. Then have her take the same position facing an-

Ex. 5. On the figure sketch indicate with crayon the contours of the model, applying the anatomy study.

Ex. 6. In developing the details of sketching take problems for the study of the head, hair, hands and feet.

Ex. 7. Make a careful study of the costume on the figure, noting the effect of the action upon the drapery—such as the characteristic folds at the elbow and bottom of the skirt. The intelligent draping or costuming of the layout, that is, the pose without a costume or the figure plan for an illustration, is a very important phase of the work.

Ex. 8. Draw a group of two standing figures.

Ex. 9. Draw a seated figure.

Ex. 10. Fig. III. Draw a group consisting of a seated and a standing figure.

Ex. 11. Fig. IV. Draw sketch of a child and also a group composed of adult and child, in order to compare characteristics.

Purpose: The purpose of these exercises is to deduce proportions and to study the perspective, action, and construction of the figure, and to develop the faculty of visualization. When the elements of sketching a construction have been learned, students should be encouraged to develop their own ideas in regard to treatment, using any medium they wish. A good problem in advanced work of this kind is the making of a fashion poster for an advertisement or booklet cover.

FLORENCE A. NEWCOMB
Washington Irving High School, New York.

Miscellaneous

TABLEAUX. Children enjoy working out tableaux even more than they enjoy seeing them. The planning of the "piece," the gathering or making of the accessories, the staging of the picture effectively, are all exciting and profitable exercise. Plate XXXII shows Pilgrims going to church, by pupils of the North Bennett Street Industrial School, Boston, under the direction of Mr. Alvin E. Dodd.

NOVEMBER
S M T W T F S
1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30
The shadow by my finger cast
Divides the future from the past;
One hour alone is in thy hands,-
The NOW on which the shadow
stands.

PLATE XXXV. A November calendar, third in a series of decorative designs with the history of timekeeping as motif.

TURKEYS. Plate XXXIII furnishes data for illustrating and decorating the Thanksgiving things. These fine drawings by Bess Bruce Cleaveland continue the "Good Zoo" series.

PLAYMATES FROM OTHER LANDS. Plate XXXIV shows the third in the series of designs for coloring, by Miss Rachel Weston. The Holland children appeared in September and the Swiss children in October. Here are Miss Weston's directions for coloring:

Antwerp blue is best for this Italian sky and sea. The smoking mountain is the same with a hint of violet. The distant town is white; the little sail, orange, and the pointed trees, olive green.

All these colors should be kept rather light and soft as they but form a background for the little friends

framed in the vine and its grapes. For the leaves use olive green, browns for the branches, and purple for the fruit.

Lucia is leaning against a wall, warm light grey in color. The same tint occurs on the top of the stone wall and on the pavement. The side wall is darker.

Both children have dark hair, and flesh tones rich in color. Paint Guido's little shirt a tint made from yellow ochre with a touch of green and red. His pet marmot is a greyish brown and wears a red collar and strap.

Lucia's head dress, bodice, and stockings are white. The girdle is black with green laces, and red sleeve straps. The skirt is brown in which there is a suggestion of purple. The pointed overskirt showing at the back is green. Paint the apron in soft shades of green, yellow and red. For the flax on the distaff and spindle use a tint of yellow grey. The shoes are the same and have green laces.

The pomegranates in the old green basket are light yellow with pinky red kernels, the grapes purple.

The letter space is like the pavements. The arches are in warm greys, and the vines green.

NOVEMBER CALENDAR. Plate XXXV gives the third design in a series reviewing the history of time-keeping. This shows the Sundial, one of the oldest and most reliable of devices (when correctly made, and when the sky is clear). One of the earliest records of the use of the sundial is found in Isaiah 38 : 8. In the sketch the setting suggests the Euphrates valley for the reason that the sundial is said to have been invented by the Chaldeans. The quotation is a part of a much longer inscription for a sundial written by Henry Van Dyke. In copying the sketch draw the sky first, using the side of the crayon. Rub it down with the thumb. Draw the façade of the palace with the eraser; add the touches of white and black. Now draw the sundial. Add the rays of sunlight and perfect the light and shade.

MANUAL TRAINING MAY SERVE AS A SPLENDID TONIC FOR SUCH PURPOSES BUT IT SHOULD NOT BE RECOMMENDED AS A SURE CURE FOR LAZINESS OR CHRONIC INDIFFERENCE. IT ENCOURAGES NEATNESS, ACCURACY, AND HONESTY; BUT IT SHOULD NOT BE BRANDED AS A FAILURE IF IT DOES NOT CONVERT A SLOVEN WRECK INTO A NEAT, USEFUL CITIZEN. —*John W. Curtis.*

JUST HOW TO DO IT

Equipment for Mechanical Drawing

A BRIEF DESCRIPTION OF EQUIPMENT RECENTLY DESIGNED AND INSTALLED IN FOUR MECHANICAL DRAWING ROOMS OF THE TECHNICAL AND INDUSTRIAL DEPARTMENT OF THE WM. L. DICKINSON HIGH SCHOOL OF JERSEY CITY.

By Frank E. Mathewson, Director

THE plan of two of these rooms (Plate I, A) shows that they differ but little in size and shape from ordinary academic class rooms in most high schools. The problem of the arrangement of the furniture in these rooms was precisely the same as that which frequently arises when technical and industrial classes are organized in schools where certain of the work, especially drawing, must be done in this style of class room.

As no one of the four rooms could be assigned to the definite purpose of accommodating only pupils of a certain grade, it was therefore necessary to so plan the equipment, that if it be required, any mechanical or architectural drawing from the simple problems of the first year on small sheets, to the larger and more complicated work in machine design, or architecture, of the senior year, might be accomplished with the equipment of the room.

The class unit in this department, averages thirty pupils for both shop work and drawing; therefore this unit determined the number of drawing tables, stools, sets of instruments, and other similar equipments to be provided in each room. The number of classes each having six periods of work per week, multiplied by the class unit, determined the required number of drawing boards, text books, and other individual equipment.

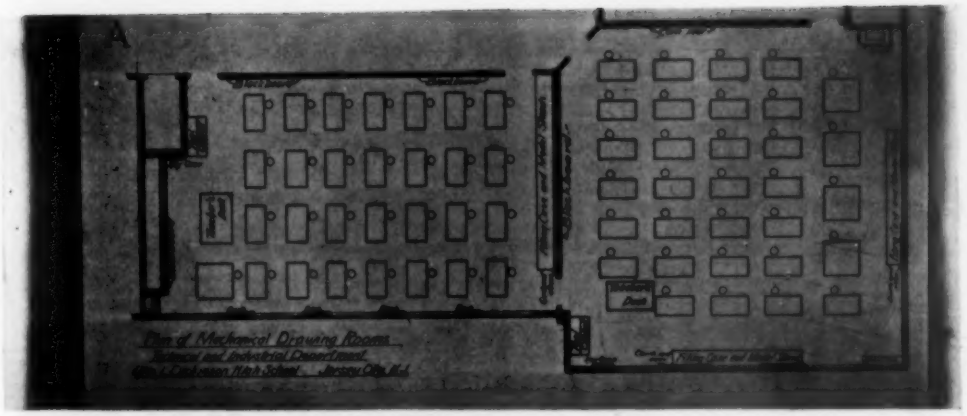
Each room offered a slightly different problem for the arrangement of the equipment. The location of windows determined the position of tables, for the best light for mechanical drawing must come from the left of the pupil, and when possible, from the left and front of the pupil, in order that there may be no shadows on the working edges of the tee-square or triangles.

The drawing table, (Plate I, B) has a top 26″ by 46″ and the table is 37″ high. It has eight drawers, thus providing for six different classes of day school pupils, and two classes of night school pupils. The inside measurement of each drawer is 13⅜″ by 20½″ and 2½″ deep, giving ample room for all materials assigned to the individual pupil, including his drawing board, notes and text book.

The drawing board is 14″ by 18″ and ⅝″ thick and rests in rabbets cut in the inside of the drawer. This is not only the most convenient place to keep the drawing board, but this arrangement saves the expense of placing partitions between the drawers, as the board serves as a partition. Nearly ninety per cent of drawing sheets are 11″ by 15″, or under, and the board is sufficiently large for these sheets. The tee-square has an 18″ blade and when not in use hangs underneath the table on a hook in the right side of the cabinet of drawers. A number of 30″ and 48″ tee-squares are provided for use with the larger boards. The cabinet of drawers is placed at the left hand end of the table in order that the pupil sitting at the right hand end may have plenty of room on top of the table for his drawing board and also have sufficient room for the tray of instruments, text book and other materials.

Each drawing room has from one to four special drawing tables, (Plate I, C, D) each arranged to provide storage space for 13 boards, 22″ by 31″ by ¾″ and 8 boards 16″ by 23″ by ¾″. These boards are used for the ten per cent of work requiring drawing sheets larger than 11″ by 15″. A complete set of instruments, two triangles, scale and pen holder, are provided for each table. These are kept in tool trays which when they are not in use are stored in the tool cabinet.

The picture of this cabinet (Plate II, E) illustrates very clearly the various purposes for which it is used. In addition to the tool trays it has three drawers for filing large drawings, shelves for books, models and other drawing room accessories, and ample storage space below the drawers. It has proved to be a very



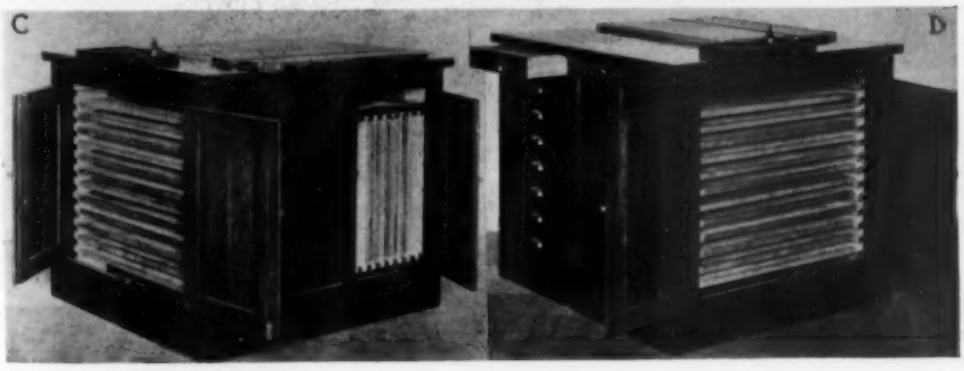


PLATE I. Drawing tables and a good plan of installation.

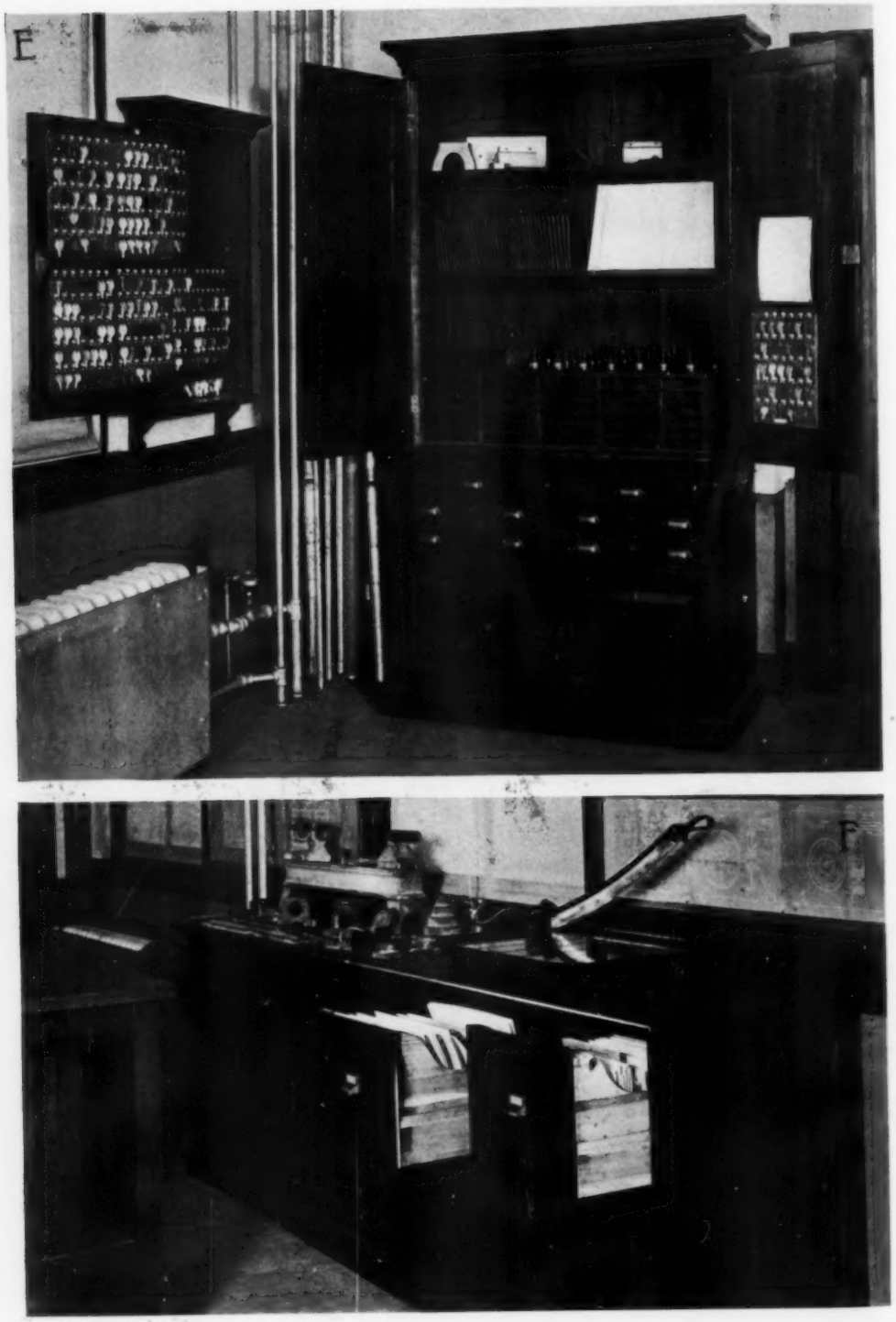


PLATE II. Two useful cabinets of unusual design. By Frank E. Mathewson.

convenient and satisfactory article of drawing room furniture. This illustration also shows the key cabinet in which are kept all of the keys for the drawers in the tables. The keys for each class are tagged to indicate number of table and drawer and are kept on one of the boards, which the instructor hangs on the door of the tool cabinet when the class come into the room. As each pupil takes his key from the board, he also takes the tool tray marked to correspond with the number of the table to which he is assigned. At the close of the drawing period, tool tray and key are returned to the cabinet. In this way no keys are lost or mislaid, and the instructor inspects each tray as it is placed in the cabinet thus insuring that the instruments are returned in good order.

PLATE III. A view in the square room (Plate I A) looking toward the corner door. Notice the blackboard and the bulletin board as well as the convenient arrangement of tables and the effective lighting.

Each room is provided with several combination cabinets (Plate II, F) for filing drawings and the storage of models. Drawings up to 11″ by 15″ in size may be filed in a vertical position, and the galvanized iron partitions in each drawer provide thirty-six spaces, each large enough to give ample space for all the work of each pupil in a class. Larger drawings and tracings may be filed in the drawers provided for this purpose in the tool cabinet. The top of this combination cabinet makes an excellent model stand and the closets in the base allow plenty of storage room for models and materials not in daily use.

Adequate blackboard space is provided for demonstration purposes and blackboards are placed in a location where work on them may be seen by the whole class. All other available wall space is covered with a cork-mat or linoleum, which makes the most suitable material for a background upon which to exhibit drawings. See Plate III.

The department has a blueprinting room equipped with an electric blueprinting machine and large washing sink. Here is done all the blueprinting of hundreds of instruction sheets and other drawings which are required in large numbers. When only a few prints are required, they are made in the drawing room, using a

small printing frame, and washed in the sink provided for the purpose in each room. Another picture shows the blueprint corner of one of the drawing rooms. The rack holding the prints, is an ingenious device invented and made by one of the pupils in the department.

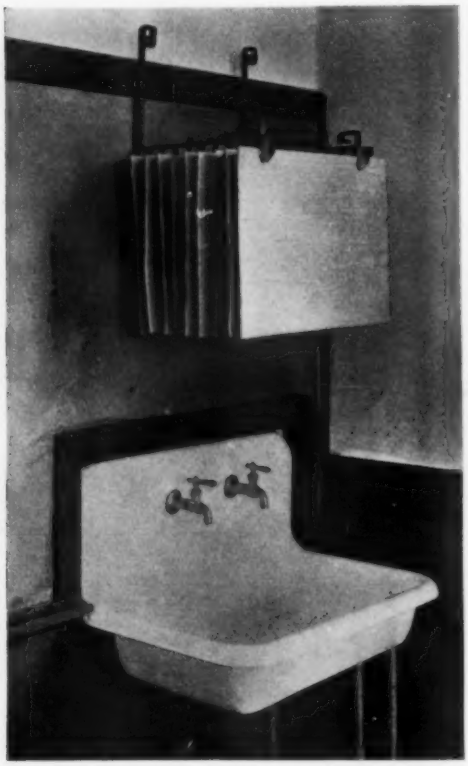


PLATE IV. A corner sink for blue printing in the square room (Plate I A).

A half-inch steel ball rolling in a pocket instantly catches or releases a print.

The following itemized list gives in detail the equipment provided for the corner room shown in the plan. With the exception of blackboard space, cork mats, and number of drawing tables the equipment of all of the four drawings rooms is practically the same.

FURNITURE.

28 Regular Drawing Tables.
4 Special Drawing Tables.
32 Stools.
1 Tool Cabinet.
2 Combination Filing Cases and Model Stands.
1 Key Cabinet.
1 Book Case.
1 Teacher's Desk.
25 ft. Slate Blackboard.
42 ft. Cork Linoleum 36″ wide.

DRAWING MATERIALS.

256 Drawing Boards 14″ x 18″ x 5-8″.
32 Drawing Boards 16″ x 22″ x ¾″.
52 Drawing Boards 23″ x 31″ x ¾″.
33 Sets Instruments in tray each containing—
One compass 5¼″ over all, with fixed needle point, pen, pencil and lengthening bar.
One Hair-spring Divider 5¼″.
One Ruling-pen 5″ long, with aluminum handle, upper blade with spring and T-bolt screw.
1 Steel Spring Bow Divider 3″—metal handle.
1 Steel Spring Bow Pencil 3″—metal handle.
1 Steel Spring Bow Pen—3″—metal handle.
The bow pen, pencil and compass all filed with screw needle points and T-bolt screws.
33 18″ Amber lined Tee-squares.
8 30″ Amber lined Tee-squares.
2 48″ Amber lined Tee-squares.
33 8″ x 30 deg. 60 deg. Amber Triangles.
33 6″ 45 deg. Amber Triangles.
36 Iron Ink Bottle Holders.
1 set of 22 Curves.
1 set of Blackboard Instruments.
1 Tubular Beam Compass.
1 Draftsman's Protractor.
1 Section Liner.
1 Paper Cutter 15″ blade.
2 Steel Rules 12″ x 18″.
2 pair Outside Calipers.
1 pair Inside Calipers.

The total cost of the equipment for this room was $1,382.40. The total cost of completely equipping the four mechanical drawing rooms and the blueprinting room was $5,411.63.

Organization for Efficiency

WITH TECHNICAL, INDUSTRIAL, AND PRIVATE SCHOOLS SPRINGING UP ALL OVER THE COUNTRY, WHAT WILL BE THE FUTURE OF THE HIGH SCHOOL?

By Harry LeRoy Jones

Director of Manual Arts, Somerville, Mass.

ONE out of every five graduates of three typical high schools has won a scholarship at Harvard (1911), while only one in thirty-five graduates of seven leading private preparatory schools has gained scholastic honors. This appears to prove that public ownership of secondary schools is not unsuccessful, as far as the production of good scholars is concerned. This is very good as far as it goes. We

have been in this work for a number of years and fairly successful. But ninety per cent of the people in the United States follow industrial pursuits and will continue to do so. All great industries, as well as other essential activities, must go on in the future as in the past, even if every other man in the community is a college graduate.

The time has come when the high school must serve not only the exceptional five per cent but the ninety-five per cent as well. We must first overcome our antipathy to vocational education. I do not believe that separate industrial schools, unless supported entirely by the State, will solve the problem. If we have separate schools, there will be as many different forms of education as there are different forms of industry, with little of mutual sympathy and nothing of community of purpose. If industrial education is given only in industrial schools then the high schools will lose forever their hold on the masses. The separate industrial school being established for special ends, will attain those ends by the most direct means possible. It will become almost exclusively technical. The product of these schools will be successful from the narrowest viewpoint; but decidedly unsuccessful from the larger point of view. They would be trained, not educated.

Being a firm believer in the high school, and having just organized a course in manual arts for the elementary schools leading up to the high school, I would add courses in industrial training in our present secondary schools, apportioning about one-fourth the time of every pupil to something vocational, and I would not esteem any industry too commonplace to be included in the school curriculum. It is not necessary to bring all occupations and industries into our schools, but it is necessary that we bring in a goodly variety of what may be considered the major activities in order that training may be given in a variety of forms and that the boy or girl may have a reasonably broad field for a choice. We can combine the vocational and the non-vocational subjects in our high school if we will, and each will be benefited by the other.

Every man and woman should be provided with two forms of education—one to fit him to work, the other to fit him to live. If the high school stands for this universal education, the best results will follow when as many vocations as necessary are taught together in the same school, under the same management and to the same body of pupils. A perfectly homogeneous population can only thus be secured, and in no other way can universal efficiency be so closely combined with good citizenship. Industrial pursuits and learning can be intimately united, and morals and good government be safely intrusted to a free people.

It has been advocated as a first change that there should be a liberal training before the vocational training. It is now evident that there is a direct relationship between the two, and that they should go together. The liberal studies have a social significance, and when worked out with the vocational, the student sees the relation of his own work to the work of others and to the welfare of society. To give vocational training without the accompanying liberal studies would be to train the workman to use his hands without his head. Every man to be efficient needs the vocational, to be happy and safe he needs the liberal. Any system of education for the many would drag one down to the level of mere materialism, the average man down to the low plane of a mere mechanic, fitted to do his work with skill only, and unfitted to live his life with happiness and satisfaction to himself and others. We must hold together in one system of education, from bottom to top, the cultural and the useful, the practical and the ideal, the material and spiritual, with due regard for the common needs as well as the special needs of all.

This can be brought about by beginning in the elementary schools, and specializing in the high school, if we do not measure with the tape line of dollars and cents.

First, I would by all means retain the manual training, making it more practical, and part of a complete course of manual arts, closely correlating the drawing and hand work with the other subjects of the curriculum (if this plan of the work is made vocational). The high school cannot turn its back upon vocational training of any major kind and say: "Let the trade and the industrial school do that." Manual training should not lose its

general educational value but distinctly gain by being given a more definite industrial bent and also a more cultural bent than it has in the past. It should be an intrinsic part of the course of study and not an adjunct. Manual training should be related to the industries of the community. Few courses of study which include manual training have connected the handwork with the leading industries of the community.

The homemaking course may be rounded out with strong work in domestic science and art, household decoration, sanitation, and personal hygiene. It cannot be emphasized too often that a vocational course does not consist merely of vocational subjects thrown at random into a high school system. The vocational purpose must be satisfied by a definite course.

This brings us to the question of how a manual training equipment should be planned. Undoubtedly it is best developed when related to the local field, when its housing is adapted to the needs of the local situation, when its equipment is in accordance with the best modern shop practice, when the course of study is developed after consultation with leading industrial experts of the community. Cooking, sewing, manual training, and shopwork and drawing are worthy of a more important place in the scheme of secondary education. To introduce these subjects not only in a corner of the school building, but in a corner of the secondary school program, is to give them a position unworthy of their possibilities. Greater point value also should be given to these subjects. The local school of today is built in accordance with other schools after the local architect has done what he can to add to the beauty of the outside by destroying the effective workings of the inside.

It has been demonstrated that two-fifths of the school day can be given to hand work, related to other school subjects, without the loss of any essentials of the academic work and with greatly added power and efficiency in the pupil. The chief aim is not to produce *things* but to make citizens and there is no need of turning the school into a shop. But in the production of articles in the workshop, there should be a direct commercial value. Every boy and girl should be able to plan and make something useful for the school and home and gain by the doing.

The handiwork of pupils in all schools should consist as far as possible of work which possesses definite commercial value, and the constructive efforts will often take the form of real things and not be imitations of real things.

Where to Find What You Want

This is the first attempt to make an alphabetical list of things required in teaching the arts and crafts in schools, and to furnish a key to obtaining them. The list is far from complete in any respect. It is a beginning. We invite suggestions, additions, corrections, from all our readers. We want to publish later a first-class list, the very best possible. This can only be done through the co-operation of teachers, buyers, manufacturers and dealers. Again we invite the help of every reader.

Address A. S. Bennett, 120 Boylston St., Boston.

A PARTIAL LIST OF CONCERNS CARRYING FIRST-CLASS MANUAL ARTS SUPPLIES

1.	A. B. C. Weaving Loom Co.	Chicago
2.	Abernathy Vise & Tool Co.	Chicago
3.	American Crayon Co.	Sandusky
4.	American Lead Pencil Co.	New York
5.	American Rattan & Reed Mfg. Co.	Brooklyn
6.	American Type Founders Co.	Jersey City
7.	American Woodworking Machy. Co.	Rochester
8.	Atkinson, Mentzer & Co.	Chicago
9.	Ault & Wiborg	New York
10.	Banghart & Co., Irving G.	Chicago
11.	Barnhart Bros. & Spindler	Chicago
12.	Beckley-Cardy Co.	Chicago
13.	Beehive Press	Peoria
14.	Belcher & Loomis	Providence
15.	Bemis, A. L.	Worcester
16.	Binney & Smith	New York
17.	Bishop & Co., Geo. H.	Indianapolis
18.	Buffalo Forge Co.	Buffalo
19.	Bull, Schuyler	Rochester
20.	Chandler & Barber	Boston
21.	Chandler & Price	Cleveland
22.	Columbia School Supply Co.	Indianapolis
23.	Comstock Co., The W. T.	New York
24.	Crescent Machine Co.	Leetonia
25.	Dennison Mfg. Co.	Boston
26.	Devoe, F. W. & C. T. Raynolds Co.	New York
27.	Dietzgen & Co., Eugene	New York
28.	Disston & Sons, Henry	Philadelphia

29.	Dixon Crucible Co., Joseph	Jersey City
30.	Eagle Pencil Co.	New York
31.	Eberhard Faber Co.	Brooklyn
32.	Economy Drawing Table Co.	Toledo
33.	Elliott, B. K.	Pittsburgh
33½.	Mrs. C. C. Filkins	Buffalo
34.	Flanagan Co., A.	Chicago
35.	Franklin Crayon Co.	Rochester
36.	Frost & Adams	Boston
37.	Garden City Educational Co.	Chicago
38.	Grand Rapids Hand Screw Co.	Grand Rapids
39.	Hall, W. A.	Boston
40.	Hammacher & Schlemmer	New York
41.	Hammett, J. L.	Boston
42.	Handicraft Guild	Minneapolis
43.	Hansen's Type Foundry	Boston
44.	Hatfield, J. H.	Boston
45.	Higgins & Co.	Brooklyn
46.	Hinckley, R. W.	Boston
47.	Johnson & Son	Racine
48.	Kueffel & Esser	Hoboken
49.	Lewis, Thos. K.	Columbus
50.	Lindenmeyer & Sons, Henry	New York
51.	Lufkin Rule Co.	Saginaw
52.	Manual Arts Press	Peoria
53.	Matsumoto Do	Tokyo, Japan
54.	McGraw Hill Book Co.	Springfield
53.	Milton Bradley Co.	Springfield
56.	Oliver Machinery Co.	Grand Rapids
57.	Orr & Lockett Hardware Co.	Chicago
58.	Porter Machinery Co.	Grand Rapids
59.	Porter Mfg. Co.	Pittsburgh
60.	Post Co., Frederick	Chicago
61.	Practical Drawing Pub. Co.	Dallas
62.	Prang Co.	New York
63.	Pratt Institute	Brooklyn
64.	Ruxton, Philip	Chicago
65.	Sargent & Co.	New York
66.	Schlau Burnett Co.	Chicago
67.	School Arts Publishing Co.	Boston
68.	Scott Foresman Co.	Chicago
69.	Scribner's Sons Co., Chas.	New York
70.	Seneca Falls Mfg. Co.	Seneca Falls
71.	Sheldon, E. H.	Muskegon
72.	Sherwin-Williams So.	Cleveland
73.	Shima, E. T.	New York
74.	Simmons Hardware Co.	St. Louis
75.	Simonds Mfg. Co.	Fitchburg
76.	South Bend Machine Tool Co.	South Bend
77.	Standard Crayon Co	Danvers
78.	Stanley Rule & Level Co.	New Britain
79.	Starrett & Co., L. S.	Athol
80.	Strathmore Paper Co.	Mittineague
81.	Talens & Son	Irvington
82.	Taylor-Holden Co.	Springfield
83.	Todd, Dana	Minneapolis
84.	Van Nostrand, D.	New York
85.	Veeck, G. A.	New York
86.	Wadsworth Howland Co.	Boston
87.	Walderaft Co.	Indianapolis
88.	Washburn Shops, The	Worcester
89.	West Side Iron Works	Grand Rapids
90.	Williams, Brown & Earle	Philadelphia
91.	Winsor & Newton	New York

AN ALPHABETICAL LIST OF TOOLS, MATERIALS, ETC., WITH REFERENCES TO THE LIST OF RELIABLE DEALERS

Basswood—Local Dealer
Beads—37, 55
Benches for Manual Training—15, 20, 38, 40, 56, 57, 71, 88
Blackboards—22, 55
Blackboard Crayons—3, 29, 35, 77
Block Printing Materials—41, 73
Blotting Paper—Local Dealer
Blue Print Supplies—27, 48
Bogus Paper—55, 62
Bookbinder's Board—12, 34, 41, 55
Booklet Cover Papers—12, 37
Brads—Local Dealer
Brass in Sheets—40, 57
Bristolboard—12, 80
Calendar Pads—Local Dealer
Cardboard—12, 50
Ceramic Goods—33½
Chamois Skins—39
Charcoal Paper—36
Clay—34, 37, 41, 55
Color Charts—26, 62, 86
Colored Crayons—3, 16, 27, 77
Colored Drawing Papers—10, 12, 41, 55, 61, 80
Construction Paper—12, 34, 37, 41, 55
Copper in Sheets—14, 40, 49, 57
Cover Papers—12, 80
Crash—Local Dealer
Draftsmen's Tools—21, 38, 40, 58, 57
Drawing Implements—27, 36, 48, 60
Drawing Inks—45
Drawing Instruments—27, 48, 60
Drawing Materials—26, 27, 48, 53, 55, 91
Drawing Papers—36, 80
Drawing to Scale Paper—67
Drawing Scales—48, 55
Drawing Tables—48, 55
Easels—36, 44
Electrical Supplies—40, 57
End Papers—12, 53
Eyelets and Punches—20
Filing Cases—38
Hinges—40, 57
Isometric Netted Paper—67
Japanese Goods—53, 73
Japanese Papers—53, 73

Japanese Prints—53, 73
Jewelers' Furnishings—14, 85
Kilns—33
Kindergarten Supplies—12, 41, 55
Lantern Slide Camera—33
Lacemaking Equipment[1]
Leather for Tooling—39, 46
Lettering Brushes—53, 55
Lettering Pens—48
Linens—Local Dealer, 62
Locks—40, 57
Macramé Cord—Local Dealer, 41, 55
Manila Drawing Paper—41, 55
Mechanical Drawing Paper—36, 80
Mechanical Drawing Kits—27, 48, 51, 55
Metalworking Machinery—18, 51, 58, 76
Metalworking Material—40, 57, 59
Model Stands—55, 61
Mounting Board—12, 80
Nails—Local Dealer
Oak Lumber—Local Dealer
Oak Tag Paper—41, 50
Oil Color Materials—16, 26, 44
Oil Finishes—Local Dealer, 72
Oil Stone—49, 57
Ooze Leather—39, 46
Paper Cutters—34, 41, 55
Paper for Printing—50
Paper-Mats for Weaving—12, 34, 41, 55
Paste—41, 55, 62
Pencils—4, 29, 30, 31
Perspective Sketching Sheets—67
Photographic Supplies—Local Dealer
Porcelain, undecorated—33½
Potters' Supplies—41, 55
Printing Inks—9, 64
Printing Outfits—6, 11, 21, 43
Raffia—34, 37, 41, 55
Reed—5, 34, 37, 41, 55
Sandpaper—Local Dealer, 20
Scissors—20, 40, 53
Screws—Local Dealer, 20
Semi-precious Stones—85
Sawing Implements—17, 75
Silver for Jewelry—14, 85
Sketching Kits—36, 44
Square Netted Paper—67
Stains—72
Stencilling Materials—55, 61, 62, 72, 87
Stencil Paper—41, 55, 61, 62
Strawboard—50
Thin Wood—Local Dealer
Thumb Tacks—27, 36, 48
Tools for Light Woodwork—21, 57
Tools for Jewelry and Metal Work—14, 57
Tracing Cloth—27, 36, 48
Tracing Paper—27, 36, 48, 53
Varnishes—72
Watercolor Materials—26, 55, 81, 86, 91
Wax Finishes—47, 72
Weaving Implements—1, 83
Weaving Supplies—41, 55
White Drawing Paper—41, 55, 62, 80
White Pine—Local Dealer
Wire for Jewelry—14, 49, 57
Woodcarving Tools—74, 78, 79
Woodworking Machinery—2, 7, 56, 65, 70, 74, 76
Woodworking Stock—Local Dealer
Yarns for Weaving—55, 65

[1] Miss Bessie E. Merrill, Columbia University, New York. Miss Mary E. Bradford, Roxbury, Mass.

THE PRESENT DEMANDS OF THE WORLD ARE BECOMING TOO EXACTING TO APPROVE SOME OF THE MANUAL TRAINING WE HAVE BEEN DOING. WHEN A YOUNG MAN LEAVES SCHOOL NOW THE WORLD WANTS TO KNOW WHAT HE CAN DO, HOW WELL HE CAN DO IT, AND HOW SOON HE CAN GET IT DONE.

John W. Curtis.

ART-CRAFT LITERATURE

AN HOUR WITH A BOOK WOULD HAVE BROUGHT TO HIS MIND
THE SECRET THAT TOOK HIM A WHOLE YEAR TO FIND.
THE FACTS THAT HE LEARNED AT ENORMOUS EXPENSE
WERE ALL ON A LIBRARY SHELF TO COMMENCE.
ALAS FOR OUR HERO! TOO BUSY TO READ,
A. E. WAS TOO BUSY, IT PROVED, TO SUCCEED.[1] *L. H. Robbins.*

A Few Books on the Manual Arts

The task assigned me by the editor is to prepare a list of the choicest books on "manual training and the industrial topics that have been the logical outgrowth of it." This limitation at once excludes many valuable books on the manual arts which have been written from a different point of view. The present list, then, will contain only such books as have had a school teaching motive behind them.

Even within this limited field the work of selecting is not easy, and therefore this list must be regarded as tentative. Moreover, one's estimate of a book depends upon his needs, his interests, his taste. My list must necessarily be made up of books that have made a favorable impression upon me—the ones I look to in time of need, the faithful friends I like to have always about me. In preparing the list no attempt is made to say a final word on the subject, or even to be unprejudiced, but merely to let my feelings toward the books guide my pen.

I am going to begin the list with two books that seem to me to represent a desirable type of organization of subject matter for the use of teachers and supervisors:—

Griffith. Correlated Courses in Woodwork and Mechanical Drawing.
Buxton and Curran. Paper and Cardboard Construction.

Next, I will give a list of books that may be regarded as representing a new class of textbooks that is coming into the field, though some of these are now used as much by teachers for reference as by pupils for study:—

Noyes. Handwork in Wood.
Noyes. Wood and Forest.
Ilgen. Forge Work.
Griffith. Essentials of Woodworking.
King. Elements of Woodwork and Construction.
Purfield. Wood Pattern-making.
King. Constructive Carpentry.
King. Inside Finishing.
Moore. Mechanical Engineering and Machine Shop Practice.
Tate and Stone. Foundry Practice.
Kamp. Machine Shop Practice.

After these it seems appropriate to add books of problems for the use of students. In some cases these include quite definite instructions to the students; in others this feature is omitted.

McClellan. Practical Typography.
Crawshaw. Problems in Wood-turning.
Littlefield. Notes for Forge Shop Practice.
Griffith. Problems in Beginning Woodwork and Mechanical Drawing.
Griffith. Advanced Projects in Woodwork.
Moore. Manual Training Toys.
Larsson. Sloyd for the Three Upper Grammar Grades.

In addition to the above groups there are other valuable books which for the present purpose might be roughly classified as teachers' reference books. Some of these have come into being as a direct result of manual training in the schools, while others are technical treatises:—

Rose. Copper Work.
Rowe. Practical Wood-Carving.
Mickel. Leather Work.

[1] Books which promise to be of especial value to teachers of drawing and handicraft are starred (*) and added to the School Arts Library of Approved Books, which may be purchased from the School Arts Publishing Company at a discount to readers of the SCHOOL ARTS MAGAZINE.

Wells and Hooper. Modern Cabinet Work, Furniture and Fitments.

Hough. Handbook of the Trees of the Northern States and Canada.

Starbuck. Standard Practical Plumbing.

Atkins. Practical Sheet and Plate Metal Work.

Googerty. Hand Forging and Wrought Iron Ornamental Work.

Binns. The Potter's Craft.

Powell. Barn Plans and Out Buildings.

CHARLES A. BENNETT,
Editor, The Manual Training Magazine, and Industrial Eduation, Peoria, Ill.

Heraldry for Craftmen and Designers*

An attractive book by W. H. St. John Hope Litt.D., D.C.L., with diagrams by the author and numerous illustrations, colored lithographs, and collotype reproductions from ancient examples. The Macmillan Co.

This is an important addition to the Artistic Crafts Series of Technical Handbooks edited by W. R. Lethaby, a series the peculiar excellence of which is well known among teachers of art. While heraldry may not find so large a place in American art as in that of England, it is a subject which cannot be disregarded by any designer, closely associated as it is with the history and traditions of our institutions, family, educational and civic. There are many books on heraldry but most are ill-suited to the needs of a designer. The present volume is welcome because it is put together to meet the needs of the artists. It is intended to answer the questions and to explain the usages and customs which must be clearly understood by those who employ heraldic devices in design. The many illustrations are not only explanatory of the text, but in themselves form a valuable collection for refe nce, and a collection full of inspiration. They are, to a large extent, selected from heraldic seals and from architectural examples and show the highly decorative character of heraldic art.

This is a useful book of reference for the art teacher who has to deal with the designing of shields, seals, banners, etc., for pageants and festivals, or with the problem of cover designing for school booklets on historic and literary subjects. It would be well, too, if certain fundamental principles of heraldic design which are set forth in the book were generally applied to school and college flags and to the various devices used in connection with clubs and societies. J. H.

A History of The Metropolitan Museum of Art

A chapter on the Early Institutions of Art in New York. By Winifred E. Howe. Published by the Metropolitan Museum, 1913.

In the Foreword of this dignified volume Mr. Robert W. De Forest says: "The attempt to collect and present in readable form all the data of public interest concerning the New York Metropolitan Museum has been made largely with the hope that its history would encourage the establishment of such institutions in other cities. Many of our large cities now offer to museums greater possibilities of success and usefulness than existed in New York when the Metropolitan was founded forty-two years ago, and its development from small beginnings, but under a broad and comprehensive plan, should stimulate like undertakings elsewhere."

This history of our greatest American Museum cannot fail to interest all who have followed the artistic development which the United States has undergone and is still undergoing. It is, in a broad sense, the story of American Art Education.

Besides the important chapter on the "Early Institutions of Art in New York," which helped to prepare the way for the founding of the great Museum, are seven chapters on the history of the institution from "the Period of Organization, 1869-1871," through its gradual development in several homes to the present time.

In the last chapter entitled "The Presidency of J. Pierpont Morgan, 1905-1912" it is interesting to note how prominently the educational aim of the Museum is set forth in such statements as these:

"The keynote of the present era in the history of the Metropolitan Museum of Art, as in that of museums generally, is educational efficiency. As has been said, "It has become well recognized in recent years that the under-

taking of a museum does not cease with the collection and exhibition of works of art. It has to make them intelligible and attractive to the public."

The history of the recent steps that have been taken in the direction of carrying out this aim is full of interest to art teachers. These steps include the establishment of the *Bulletin*, the Information Desk, and the Photographic Department; the loaning of lantern slides, the opening of a class room; adding to the corps, a Museum Instructor, the opening of a Lecture Room and arranging courses of educational lectures, etc.

The story of the extension of the building, which still proceeds, is in itself significant of wonderfully rapid growth, and of the stupendous proportions which the Museum is attaining.

Another interest which the book possesses comes from the fact that the history of the Metropolitan Museum is so closely linked with a long list of interesting people, men representative of great works in American life. These are the men whose devotion, ability, and money have built up a great institution. J. H.

Recent Additions to the Craftsman's Library

PEASANT ART OF ITALY,* with upwards of four hundred illustrations, compiled by the Editor of *The Studio*.

DESIGNS IN LEATHER.* Nineteen plates giving drawings and instructions for making things useful in home and school. By Frederick W. Ried, State Normal School, Framingham, Mass.

TEXTILES. Information for pupils in commercial, industrial, and domestic arts schools, and for those engaged in the handling of dry goods, concerning cotton, wool, flax, hemp, and silk. By William H. Dooley. D. C. Heath & Co. $1.10.

THE HOME SCHOOL. One of the Riverside Educational Monographs. A new volume in the series, by Ada Wilson Trowbridge, setting forth in detail a school of a new type. Houghton, Mifflin Company. 60 cts.

CLAY MODELING FOR INFANTS. One of the Pitman's Handwork Series. This latest volume is by F. H. Brown, London. Seventy-nine half-tone plates, with descriptive text. Isaac Pitman & Sons, N. Y. 75 cts.

PRINTING AND BOOKBINDING. A few notes by the boys and girls of the classes of the Norwich Free Academy, under the direction of Lewis H. Walden. The pamphlet might be called a pace-maker for other printing classes.

COLOR BALANCE ILLUSTRATED.* Mr. Munsell's latest publication. A pamphlet on the teaching of color and harmonious combinations of colors in the elementary schools.

PAPER AND CARDBOARD CONSTRUCTION.* A book that takes its place at once as authoritative in its field. By George Fred Buxton and Fred L. Curran. Fully illustrated. Invaluable.

DESCRIPTIVE GEOMETRY, and MECHANICAL DRAFTING. Two standard volumes, illustrated, bound in flexible leather. By H. W. Miller, University of Illinois. Manual Arts Press. $1.50 each.

INEXPENSIVE BASKETRY. A pamphlet of 44 pages, illustrated. By William S. Marten, San José High School. A book for beginners. Manual Arts Press. 25 cts.

PRACTICAL TYPOGRAPHY.* A text book for students of printing. By George E. McClellan.

With the coming of printing into the school we have recognized a need for correct instruction in typography. We have feared that if the right standards were not set at once printing would be likely to fail in its initial purpose and become an amateurish and time-wasting school occupation. With a view to guiding school work in the fundamentals of printing, and helping this new subject to increase in value, we have just published this book. L. L. SIMPSON.

LEATHER WORK. A pamphlet giving practical assistance in technique. Illustrated. 54 pages. By Adelaide Mickel. Bradley Polytechnic Institute. Manual Arts Press. 75 cts.

OF CURRENT INTEREST

THAT VERDICT OF TWENTY

Dear Mr. Editor:

I cannot refrain from saying a word with reference to the editorials in the September number of the SCHOOL ARTS MAGAZINE. Surely the "doctrine of *interest* needs to be supplemented with the doctrine of *insight*" and again, "perhaps it is time to use the knife," but "what shall we prune?" In suggesting an answer permit me to refer to the twenty answers from various men.

Of the fourteen for pictorial drawing, four would like to draw "living things" or figures. With the average amount of time at our disposal, I wonder how many supervisors would care to guarantee ability to perform this feat, even at the end of a high school course. The other ten wish they might be able to "express their ideas" and draw forms of various objects. Of these ten, five do not adapt such knowledge and ability to their particular vocations. Of the twenty, seven show no application in business, and an eighth suggests that it might "serve for *occasional* utility." These seven are of the fourteen wishing for pictorial drawing. This is interesting and leads one to wonder whether they place much or little value on their ability to draw pictorially.

But statistics prove nothing, though they may suggest many things. For instance, these men seem to be representative, yet nine of the twenty represent the educational profession; indeed, eleven if a social worker and a clergyman may be included. Of the nine remaining, one is a physician and one a bank president. One, therefore, might inquire concerning the industrial field, a treasurer of a manufacturing company being the only representative, yet he is neither a laborer nor a leader of industrial workers, one may presume.

Furthermore, twenty representative *men* are quoted. Why not quote the "better half" on this question, those who not only enter upon an equal footing with the men in the business world, but those who mold the taste of the nation—the women? Should the men decide what is best when certainly fifty per cent of our school population consists of girls?

From the foregoing one might assume that I do not believe in pictorial drawing. I do, most emphatically, but I should feel sad indeed if "Decorative design and color" were sacrificed to the pruning knife. "For what shall it profit a man if he gain the whole world but lose his own soul?"—and of what avail if a man can draw the gods themselves if he have not refinement and cultured taste?

Rather than lop off "decorative design and color," I would prefer to concentrate on this branch and graft the pictorial twig to it. In other words, why not hold to that one subject which actually includes the other, for our design calls for pictorial drawing of the finest sort. To simplify, there might come a differentiation of courses, i. e., industrial design for the boys and decorative design for the girls—the one simmered down to constructive problems and the other to applied decoration. Both would call for and find indispensable the drawing of objects. In fact, a keener search for accurate representation would be necessary though the ultimate aim might differ.

But after all, does the idea of education aim to train ability along any of these lines? Rather, does it not seek to create a strong body, a stout heart, and a sturdy mind, a man of well trained senses and independent thought, a citizen with initiative and power for action. The motto, "This is the Best Way of Doing It" would, then, fulfill the demand and, with problems and the pursuit of knowledge related to the senses and to the activities of life, the question of drawing would take care of itself. The "Best Way" of preserving school papers, the School Booklet, is through constructive and decorative design, and the "Best Way" of studying nature is not by decoration, yet I would object strongly to sacrificing either problem or study which the development of any child requires. Let us seek, then, in our pruning, to eliminate unrelated and impracticable work, but let us not sacrifice means and

methods of teaching the "Best Way" of doing a worthy problem. ROYAL B. FARNUM.

ANOTHER OPINION

Dear Mr. Editor:

Some things in the September number arouse the combative,—especially the symposium on "If I could draw—I would that I might—"

It seems to me if we let such a vote influence us greatly, we should be willing to let the non-legal mind set forth the essentials of the law,—the person who has never used religion decide what the church should teach—and so on *ad infinitum*.

Of course I do not know (or remember if it said) exactly how you put the question—but it may be a question of a definition in clearly getting the exact drift of each criticism. Perhaps some of the dear people have not deeply considered the field of form study and the various divisions thereof.

It seems to me if we narrow down to representation in art as our goal we have a right to ask that the expression of man, woman, and child in English shall go no farther than the representing of other people's speech—the day's happenings—in fact, logically, I guess we could go a little farther than the parrot—so soon must we compose—"color" with our own individuality our spoken expression.

That's exactly the matter with music and the art of today; the creative side is weak. As I have perhaps mentioned before at least once (?), if the supervisors would come out of the air and be unafraid to make two or three exact statements, I believe we should not be considered so greatly adrift.

I am optimistic enough to believe, that while the foreigner who criticises the drawing in our schools may be able to show some specific examples of severer training in representative work, he can't match the masses against us for one tiny minute.

Now I can become so completely absorbed in trying to capture some elusive beauty of line that I forget time and eternity (can prove that I have forgotten hunger, which is usually a fair timekeeper) but nothing ever so helped me to see line and feel space intervals as design and composition, and I believe if some of these men had experienced just enough such training to know its value, we could expect a different verdict on the essential in school training. I believe it's a case where if we have given a certain base "all these things shall be added—."

If anyone can suggest a logical method of fencing form study off so it doesn't run into the world at large, I have not heard of it. And if you can't tie a line to life in some way, your grammar grade boy won't hurt himself trying to produce a line "for the line's sake."

Yours very sincerely,

CHARLOTTE REED.

A BRILLIANT IDEA

My dear Mr. Bailey:—

I am sending you an account of an experience which may be suggestive to other supervisors of art.

All art teachers are well aware that there remain some people who are opposed to art in its various forms in the public schools. Whenever we can show them a commercial use for an art problem we decrease their prejudice.

This summer I made an experiment which I shall introduce in a high school mechanical drawing class. A relative had a house to rent. I drew a simple architectural plan of the interior having in mind good spacing and suitable lettering. In every respect I endeavored to make the house-plan a true art problem. This plan was submitted to the real estate agent who had the management of the property. He was interested at once. (Up to this time house-plans have never been used in this town to show customers.) The agent suggested dimensions, saying that he had been obliged to measure rooms, in order that a prospective tenant would know how well the rugs would fit. I added the dimensions. Before I was able to return the plan it was sent for. Later I drew more plans for other dealers.

There is some money in such an undertaking, but the greater satisfaction comes from the prospects which it reveals for school use. High school students could make arrangements with real estate agents to draw all their house-plans. In a large city there might be considerable work of this sort.

Very truly,

QUEENE PERRY,

Supervisor of Art, Manistee, Mich.

Mr. C. Valentine Kirby, Director of Art Instruction, Pittsburg, Pa., has just issued a new course of study which includes a dozen or more high school art courses. He has formulated, also, a course in industrial design for evening school students adapted to the needs of printers, carpenters, decorators, sign-painters, dressmakers, milliners, etc. Vigorous editorials in the Pittsburg papers show that Mr. Kirby has the right sort of backing in his city.

A part of the dedication exercises of Springfield Municipal Group, Springfield, Mass., December 8-10, will be furnished by the public school pupils. It will consist of living pictures representing scenes from the early history of Springfield: William Pynchon and other settlers *en route* to Springfield, 1636; these settlers buying land from the Agawam Indians; the first public school conducted by John Sherman 1709, etc. There will be chorus and orchestra of school pupils, folk dances, and moving pictures of all sorts of school activities. This program will be presented in the great auditorium, called by Sembrich the most beautiful concert hall in America. The Superintendent of Schools, Dr. Van Sickle, Miss Bertha M. MacConkey, Miss Harriet C. Emerson, and Mr. C. Edward Newell, Supervisor of Drawing, constitute the committee having this part of the program in charge.

The American Crayon Company has inaugurated a new department which may have far-reaching consequences. This is a feature of its art department to be known as the free professional service division for those interested in the use of colored crayons of whatever kind. Miss Florence A. Ellis, formerly supervisor of drawing for the city of Cleveland, has charge of this department. Her services may be secured, without financial or other obligations of any kind, by any city or town desiring help in the use of the crayon as a medium of expression. Her work is strictly professional. She speaks at teachers' meetings, or visits individual schools to help teachers directly. The reputation which Miss Ellis enjoys is sufficient to guarantee the quality of service she is able to render in this unique position. Any city or town may write to the American Crayon Company stating that they wish to take advantage of the professional service offered by its art department and Miss Ellis will be booked for an engagement as soon as possible.

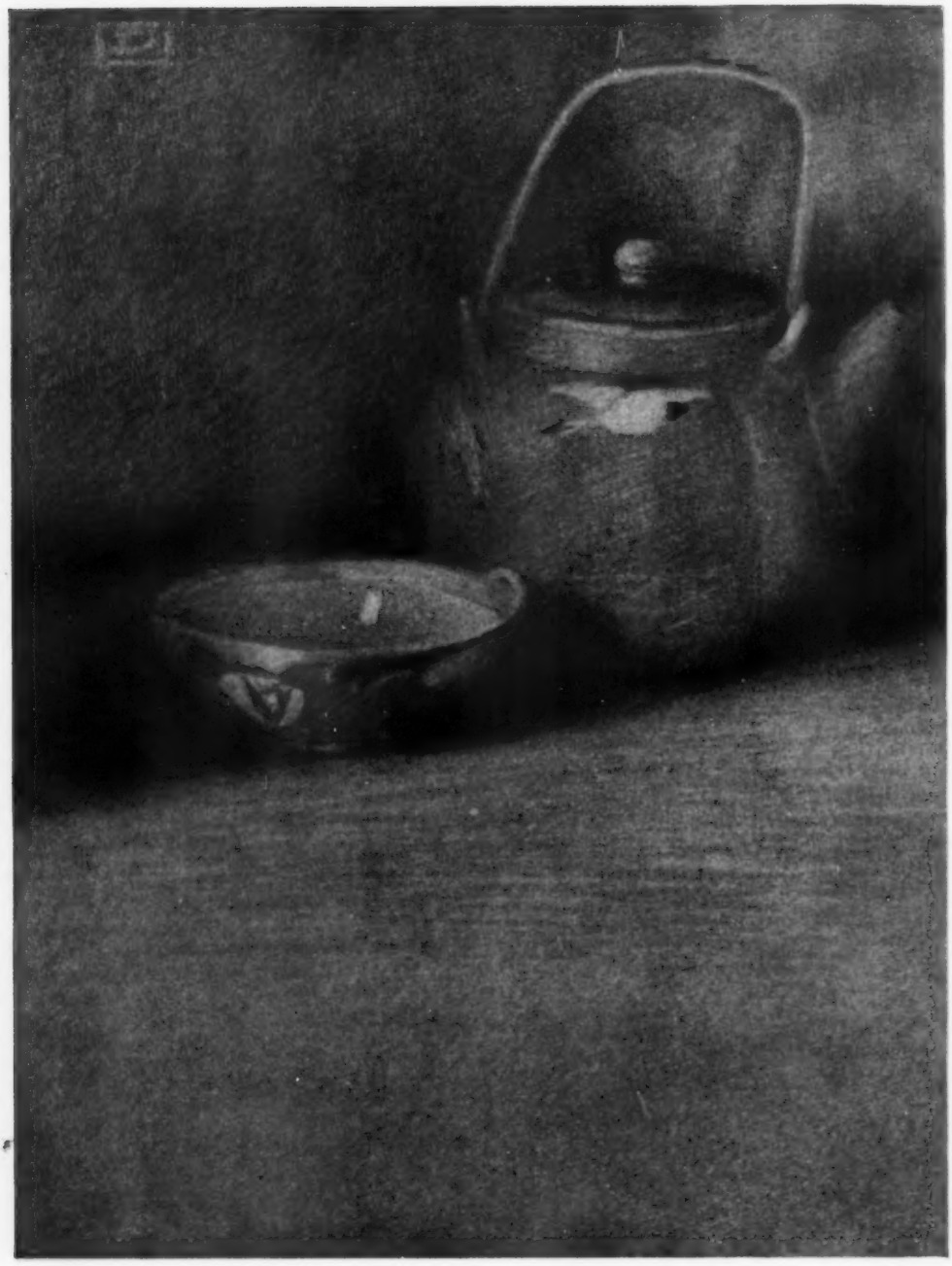
The Prang Company has just secured the exclusive adoption—for a period of five years—of their new series of drawing books in all the public schools of the two Provinces of Alberta and Saskatchewan in Canada. These new books are being printed throughout (both black and white and color pages) by the new offset process which produces such exquisite facsimile reproductions. Alberta and Saskatchewan are among the most advanced Provinces in Canada educationally and the simultaneous adoption of these Prang Drawing Books for these two Provinces is significant. The Provinces of Quebec and Nova Scotia adopted the Prang Drawing Books for exclusive use last year.

Miss Bertha Robson (M. N. A. S.) of Newtonville, Mass., has been elected to the position of Supervisor of Drawing in Mystic, Conn.

That substantial progress is being made in solving the problem of how to make country life in America, and especially in Minnesota, more attractive was happily demonstrated in the exhibit of the Minnesota State Art Commission in the Woman's Building at the State Fair under the supervision of Mr. Maurice I. Flagg, the Director. The center of attraction in the exhibit was a $3500 farm house by Hewitt & Brown of Minneapolis which was awarded first prize for usefulness of plan and beauty of appearance. Plans and specifications for such a house are offered for sale by the Commission at one dollar per copy. The exhibit by the Lacemakers of New Ulm, Minnesota, is to be sent to Boston this winter.

Carrie Crane Ingalls' Text Book on Domestic Art has been adopted officially by the state of Tennessee.

Perhaps one of the best examples of work of the Grand Rapids Hand Screw Company is the equipment for the new Jessup W. Scott High School at Toledo, Ohio. These manufacturers built the furnishings for every department of the school and the Toledo school officials are truly proud of it. Numerous school superintendents and teachers of other cities have travelled many miles to see what the Grand Rapids concern has done for Toledo.



A Group of Common Objects having beautiful color. By Fred Hamilton Daniels. Reproduced by courtesy of the Joseph Dixon Crucible Company. Notice that the group is well composed, and placed within the enclosing lines; that it has a dominant color, a warm gray; that it has an area of chief attraction, to which all other parts are subordinate; that in that area the principal colors are seen in their purest form; and that therein appears the sharpest definition of rendering.